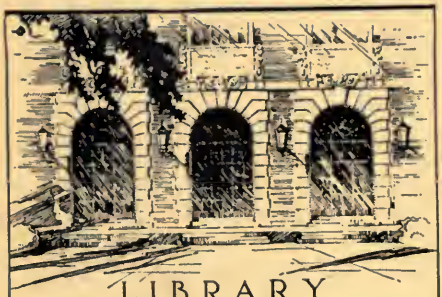

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MARKETING The Illinois PEACH CROP

by V. A. Ekstrom

UNIVERSITY OF ILLINOIS AGRICULTURAL EXPERIMENT STATION . . . Bulletin 492

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Urbana, Illinois September, 1942

Publications in the Bulletin series report the results of investigations made or sponsored by the Experiment Station

Marketing the Illinois Peach Crop

By V. A. Ekstrom, formerly Associate in Fruit and Vegetable Marketing

PEACHES ARE MARKETED in the United States from late May to October in a series of more or less separate deals beginning in the southern states and extending northward thruout the season. Harvest in any one area lasts only a few weeks and, since the fruit is highly perishable and cannot be satisfactorily stored except for a very limited period, the deals follow each other in rapid succession.

Except in California, most of the crop is sold for immediate consumption or for home canning. As the harvest progresses in the different areas there is an overlapping of shipments. Because of variations in production and ripening dates there are wide differences in supplies and prices thruout the season. The prices received for peaches at shipping points in Illinois will depend not only upon supplies coming from Illinois but also upon the crops ripening in other states at about the same time. For this reason peach growers must analyze the industry from a national viewpoint as well as from a local one if they are to plan the most advantageous production and marketing programs.

While this bulletin is designed to help Illinois peach growers obtain a broader understanding of the national peach industry and market, it also is concerned with specific problems of getting peaches to the wholesale dealer or market in the most economical way. It takes up the matter of sales outlets and methods of selling in order to help the grower decide which are likely to return the greatest profit. It also gives consideration to such problems as methods of handling the crop, transportation, grading, sizing, and packaging the fruit.

THE ILLINOIS PEACH INDUSTRY

During the ten-year period 1930-1939 Illinois ranked eighth among the states in peach production, having an average annual crop of 1,447,000 bushels (Fig. 1). In this same period the fifteen leading states produced more than 86 percent of the U. S. crop and each of these states had an average annual production of more than a million bushels. Following California, which is by far the largest producer, and Georgia, which raises about 10 percent of the total U. S. crop, the six states next in order are North Carolina, Pennsylvania, Arkansas, Michigan, Alabama, and Illinois.

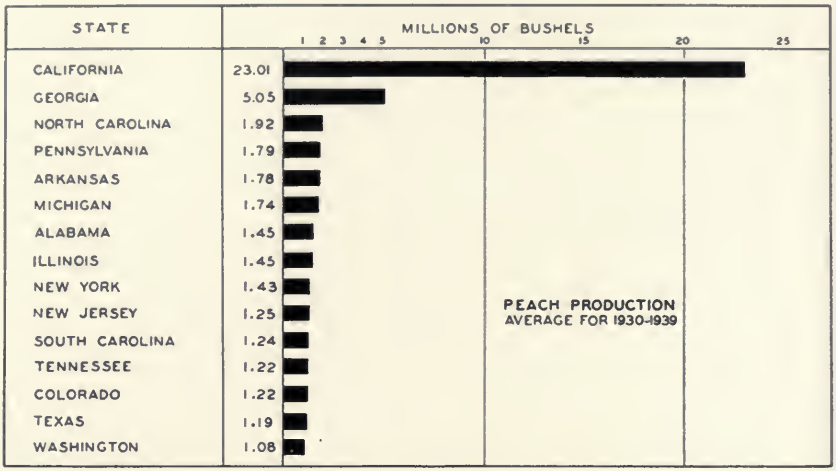

Fig. 1.—Fifteen states produce peach crops of more than a million bushels a year, according to averages for 1930-1939. Illinois ranks eighth with an average annual crop of 1,447,000 bushels.

Production Is Concentrated in Three Areas

Altho peach orchards are distributed over the entire southern half of Illinois and are found to a less extent in the west and north-central sections, the bulk of the crop comes from three definite areas in the lower third of the state, commonly referred to as the Anna, Centralia, and Sesser districts (Fig. 2). The Anna district centers in and around Union county in the extreme southern part of the state. The Centralia district, 75 to 100 miles farther north, is concentrated in Marion, Jefferson, and Washington counties and includes small areas in several adjacent counties. Between these two large concentrated areas is the smaller Sesser district, which centers in Franklin county. According to the 1940 U. S. Census, the ten leading counties in order of total tree numbers are: Marion, Union, Jefferson, Jackson, Washington, Johnson, Massac, Franklin, Pulaski, and Clinton.

In the peach district in the southern part of the state there are many more small orchards than large ones, but the small units contain only a relatively small part of all trees. This fact was shown by a classification made of the orchards of 190 growers (Table 1). The orchards ranged in size from less than 500 trees to more than 10,000, or from less than 5 acres to more than 100 acres, estimating an average of about 100 trees to the acre. Seventy-four percent of the farms had 2,500 trees or less, but these farms had only 37 percent of the total

number of trees. While more farms were in the group of 501 to 1,000 trees than in any other classification, these smaller units accounted for only 5.8 percent of the total trees. On the other hand, only 3.7 percent of the farms had more than 10,000, but these largest production units included almost double the percentage of trees in any other group.

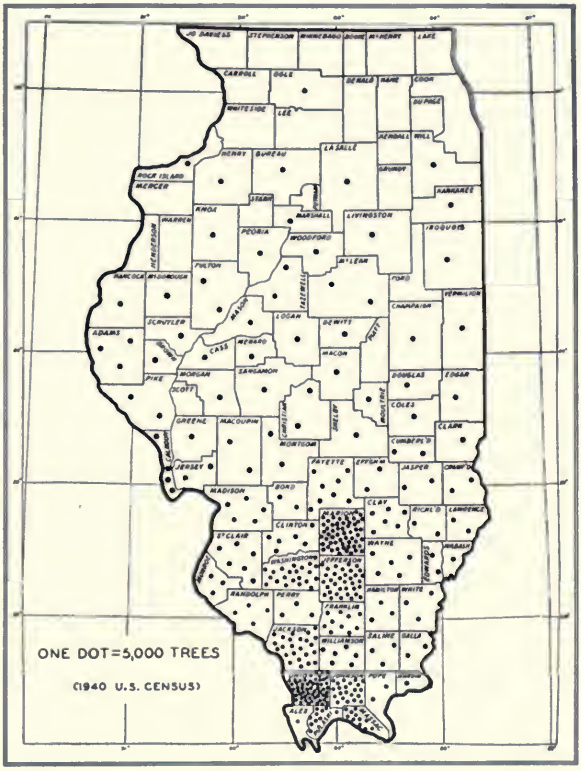

Fig. 2.—Peach production in Illinois is concentrated in the lower third of the state, as is shown by the distribution of trees in 1940. The Anna district is located in and around Union county; the Centralia district, in and around Marion county; and the Sesser district centers in Franklin county.

As the analysis of tree numbers would lead one to expect, the large farm units in Illinois produce the bulk of the peach crop even tho there are actually many more orchards operating on a small scale. This fact was shown by a survey made in 1939 of the records of 192 growers marketing 793,385 bushels of peaches (Table 2). Seventy-two of the 192 growers, or about one-third, selling crops of more than

TABLE 1.—DISTRIBUTION OF 190 ILLINOIS FARMS ACCORDING TO NUMBER OF PEACH TREES PER FARM, 1938[a]

Trees per farm	Farms			Trees		
	Number	Percent of total	Cumulative percent	Number	Percent of total	Cumulative percent
300 to 500	27	14.2	14.2	11 035	2.4	2.4
501 to 1,000	35	18.4	32.6	27 393	5.8	8.2
1,001 to 1,500	28	14.8	47.4	36 296	7.7	15.9
1,501 to 2,000	27	14.2	61.6	46 972	10.0	25.9
2,001 to 2,500	24	12.7	74.3	54 470	11.6	37.5
2,501 to 3,000	11	5.8	80.1	30 350	6.4	43.9
3,001 to 3,500	7	3.7	83.8	22 865	4.9	48.8
3,501 to 4,000	5	2.7	86.5	19 490	4.1	52.9
4,001 to 4,500	2	1.0	87.5	9 150	1.9	54.8
4,501 to 5,000	2	1.0	88.5	9 350	2.0	56.8
5,001 to 5,500	5	2.7	91.2	26 165	5.6	62.4
5,501 to 6,000	2	1.0	92.2	11 800	2.5	64.9
6,001 to 6,500	1	.5	92.7	6 250	1.3	66.2
6,501 to 7,000	2	1.0	93.7	13 690	2.9	69.1
7,001 to 7,500	..	....	93.7	.....	....	69.1
7,501 to 8,000	..	....	93.7	.....	....	69.1
8,001 to 8,500	1	.5	94.2	8 500	1.8	70.9
8,501 to 9,000	1	.5	94.7	8 800	1.9	72.8
9,001 to 9,500	3	1.6	96.3	28 200	6.0	78.8
9,501 to 10,000	..	....	96.3	.....	....	78.8
10,001 or more	7	3.7	100.0	99 544	21.2	100.0
Total	190	100.0	....	470 320	100.0	....

[a]Of the 190 farms, 155 were in the Anna district and 35 in the Centralia district. In cases where two or more farms were operated by a company or a family under a single management they were considered as a single unit.

3,000 bushels, accounted for as much as three-fourths of the total volume. This means that the growers with crops of 3,000 bushels or less, who represented about two-thirds of the 192 growers, sold only about one-fourth of the total volume of peaches. Forty-two of these small-scale producers, who had crops of less than 1,000 bushels, sold only 3.5 percent of the total volume altho they represented about 24 percent of the growers included in the survey; and 42 producers with crops ranging from 1,000 to 2,000 bushels sold only 8 percent of the total volume altho they made up 22 percent of the growers.

TABLE 2.—DISTRIBUTION OF 192 ILLINOIS PEACH GROWERS ACCORDING TO NUMBER OF BUSHELS IN THEIR 1939 CROPS

Bushels in crop	Growers			Volume in bushels		
	Number	Percent of total	Cumulative percent	Number	Percent of total	Cumulative percent
500 or less	17	8.9	8.9	4 704	.6	.6
501 to 1,000	30	15.6	24.5	22 929	2.9	3.5
1,001 to 2,000	42	21.9	46.4	64 726	8.2	11.7
2,001 to 3,000	31	16.1	62.5	77 522	9.8	21.5
3,001 to 5,000	30	15.6	78.1	119 760	15.1	36.6
5,001 to 10,000	26	13.5	91.6	188 129	23.7	60.3
10,001 to 15,000	6	3.1	94.7	70 894	8.9	69.2
15,001 to 25,000	7	3.7	98.4	124 653	15.7	84.9
25,001 or more	3	1.6	100.0	120 068	15.1	100.0
All crops	192	100.0	....	793 385	100.0	....

TABLE 3.—NUMBER AND PROPORTION OF PRINCIPAL PEACH VARIETIES AS REPORTED BY 168 GROWERS IN ANNA DISTRICT AND 38 GROWERS IN CENTRALIA DISTRICT, 1938

Variety	Anna district		Centralia district		Both districts	
	Number of trees	Percent of all trees	Number of trees	Percent of all trees	Number of trees	Percent of all trees
Elberta[a]	322 984	86.6	91 428	91.8	414 412	87.8
Red Bird	25 014	6.7	30	(b)	25 044	5.3
J. H. Hale	15 019	4.0	4 282	4.3	19 301	4.1
Others[c]	9 705	2.7	3 883	3.9	13 588	2.8
All varieties	372 722	100.0	99 623	100.0	472 345	100.0

[a]Includes a few peaches of the Early Elberta and Gage varieties, which were not reported separately. [b]Less than .1 percent. [c]Includes the following varieties: Heath Cling, Captain Ede, Georgia Belle, Candoka, Halehaven, South Haven, Diamond King, Carman, Mayflower, Slappey, and Golden Jubilee.

Elberta Is the Leading Variety

Altho twenty or more varieties of peaches are grown in Illinois, only a few of them are of commercial importance. In fact, in 1938 three varieties accounted for 97 percent of the 472,345 peach trees reported by 206 growers. Elberta comprized 87.8 percent of the trees; Red Bird, 5.3 percent; and J. H. Hale, 4.1 percent (Table 3).

The large proportion of Elberta peaches will decrease somewhat, for there has recently been an increased planting of other varieties. Of the trees reported in 1938, 93.2 percent of those 16 to 20 years old were Elberta, but this variety made up only 78.1 percent of the trees 1 to 5 years old (Table 4). At the same time Red Bird, a clingstone variety, comprized as many as 14 percent of the trees 1 to 5 years old but only 1 percent of the trees 16 to 20 years old. A considerable number of trees of the Red Bird variety were planted a few years ago because this variety ripens a month or more ahead of the Elberta and the crop came on the market when peach supplies from other sections

TABLE 4.—NUMBER AND PROPORTION OF YOUNG AND OLD PEACH TREES OF DIFFERENT VARIETIES AS REPORTED BY 206 GROWERS IN SOUTHERN ILLINOIS, 1938

Variety	Trees of all ages		Trees 1 to 5 years old		Trees 16 to 20 years old	
	Number	Percent	Number	Percent	Number	Percent
Elberta	414 412	87.8	103 988	78.1	93 160	93.2
Red Bird	25 044	5.3	18 725	14.1	1 057	1.1
J. H. Hale	19 301	4.1	4 257	3.2	2 480	2.5
Heath Cling	2 497	.5	500	.4	1 872	1.9
Captain Ede	1 911	.4	25	(a)	335	.3
Others[b]	9 180	1.9	5 641	4.2	1 000	1.0
All varieties	472 345	100.0	133 136	100.0	99 904	100.0

[a]Less than .1 percent. [b]Includes Georgia Belle, Candoka, Halehaven, South Haven, Diamond King, Carman, Mayflower, Slappey, and Golden Jubilee.

were light. As a result Red Bird peaches sold for rather high prices. In more recent years, however, this variety has sold much less readily because of increased competition with Georgia freestone varieties. Also in the last few years newer improved varieties, such as Halehaven and Golden Jubilee, have been planted in increased numbers, but as yet none of these is of any great commercial importance.

HARVESTING THE CROP AND MOVING IT TO MARKET

Time of Harvest

The harvest of Elberta peaches in Illinois usually begins early in August and lasts three to four weeks. Red Bird peaches ripen the last few days in June and the first two weeks in July, and there are crops from varieties of less commercial importance at different times thruout the summer. Unless otherwise stated, any reference to the Illinois peach crop is understood to mean the Elberta crop, since it is by far the most important variety grown.

During 1934 to 1939 and in 1941 the date of the first carlot shipment of Illinois Elberta peaches ranged from the week ended July 23, 1938, to the week ended August 11, 1934. The crop for 1940 was not considered because it was almost a complete failure.

TABLE 5.—WEEKLY CARLOT SHIPMENTS OF ILLINOIS PEACHES, 1934-1941

1934		1935		1936		1937	
Week ended	Cars	Week ended	Cars	Week ended	Cars	Week ended	Cars
June 30	1	June 29	5	July 4	1	July 3	3
July 7	4	July 5	..	July 11	1	July 10	6
July 14	1	July 13	1	July 18	..	July 17	2
July 21	..	July 20	..	July 25	..	July 24	..
July 28	..	July 27	..	Aug. 1	..	July 31	4
Aug. 4	..	Aug. 3	17	Aug. 8	17	Aug. 7	47
Aug. 11	71	Aug. 11	282	Aug. 15	66	Aug. 14	389
Aug. 18	168	Aug. 17	509	Aug. 22	62	Aug. 21	432
Aug. 15	66	Aug. 24	939	Aug. 29	..	Aug. 28	494
Sept. 1	7	Aug. 31	434	Sept. 5	..	Sept. 4	83

1938		1939		1940		1941	
Week ended	Cars	Week ended	Cars	Week ended	Cars	Week ended	Cars
July 2	..	July 1	14	July 6	5	July 5	11
July 9	..	July 8	19	July 13	1	July 12	5
July 16	..	July 15	..	July 20	..	July 19	..
July 23	4	July 22	..	July 27	..	July 26	..
July 30	42	July 29	..	Aug. 3	..	Aug. 2	..
Aug. 6	448	Aug. 5	5	Aug. 10	..	Aug. 9	18
Aug. 13	309	Aug. 12	220	Aug. 17	6	Aug. 16	229
Aug. 20	55	Aug. 19	272	Aug. 24	1	Aug. 23	341
Aug. 27	..	Aug. 26	76	Aug. 31	..	Aug. 30	138
Sept. 3	..	Sept. 2	2			Sept. 6	17

In 1939 Illinois peaches ripened at about the normal date and rail shipments were made as follows: 5 cars in the week ended August 5; 220 cars in the week of August 6 to 12; 272 cars from August 13 to 19; 76 cars from August 20 to 26; and 2 cars in the week ended September 2 (Table 5).

In 1938, however, the peach harvest was unusually early in both Illinois and the southern states. Four cars of peaches were shipped from Illinois in the week ended July 23; 42 cars from July 24 to July 30; 448 cars from July 31 to August 6; 309 cars from August 7 to 13; and 55 cars in the week ended August 20.

Preparation for Market

Illinois peaches are graded and packed largely by growers on their own farms. In some cases where two or more orchards are operated by a family as a unit, all grading and packing are done on one farm.

While most of the peaches are packed by growers on their own

Fig. 3.—Large packing sheds like this one are owned and operated by many Illinois peach growers on their own farms.

farms, there are a few instances where companies operate a central packing house to handle the produce from a number of their orchards. One of the largest of these houses in the United States is operated at Cobden in Union county in connection with an extensive orchard hold-

Fig. 4.—The large central packing house shown above handles the peach crops from several orchards operated under one management.

ing. Likewise peaches are graded and packed at central houses by two orchard companies in Massac county and by several other smaller companies in other counties.

A smaller proportion of the Illinois crop is graded and packed by cooperatives, and there is also a limited amount of custom packing done by shipping associations and other organizations.

Brushing. In Illinois it has rapidly become an accepted practice to brush peaches because the trade prefers brushed peaches and is willing to pay more for them. In 1938, 126 growers reported that 90 percent of their peaches were brushed.

Packaging. The bushel basket is used for packaging peaches except in rare cases where growers cater to a select trade. The round-bottom type of bushel basket, altho employed extensively in the past, has now been replaced almost entirely by the tub type.

Recently tub-type baskets that are ventilated have come into use. They made up one-fourth of the packages used by 126 growers in

1938. Since the ventilated package permits more rapid refrigeration, it is very desirable when peaches are shipped by rail, especially when they are precooled. Rapid cooling of the fruit as soon as possible after harvesting improves carrying quality.[1]

A few peaches are sold in bulk either as tree run or as graded fruit. In 1939 bulk sales amounted to 37,858 bushels, or 5 percent of the quantity sold by 192 growers, excluding sales made to consumers in small lots.

Precooling. Illinois growers have shown increased interest in precooling rail shipments as a means of improving the carrying quality of the fruit. Even if the precooled peaches do not sell for higher prices, some growers feel that the added expense is justified because of fewer complaints and rejections on the receiving end. In 1938 the 126 growers reported that they precooled 80 cars, or about 10 percent of all cars shipped in Illinois. Some of the larger growers precooled practically all their rail shipments. In 1939 the 192 growers reported that they precooled 39 cars, or about 6.5 percent of the cars shipped. It is assumed that practically all precooled peaches were reported in these two surveys.

Grades and sizes. Standards for peach grades issued by the Illinois State Department of Agriculture at Springfield include the following classifications: Illinois-U. S. Fancy, Illinois-U. S. No. 1, Illinois Utility. Peaches not graded in accordance with specifications for these classifications are known as Unclassified. Abbreviated forms of these grade designations are used for convenience. For example, *U. S. No. 1* means Illinois-U. S. No. 1 and *Utility* means Illinois Utility.

The Illinois law regulating the standardization and sale of fruits and vegetables requires that all closed packages of peaches be labeled with the grower's name and address, name of the variety, and the grade and minimum size or numerical count.

A large proportion of Illinois peaches are marketed as U. S. No. 1 fruit and the 2-inch minimum size classification is most commonly used. Results of surveys show that about 70 percent of the peaches are graded U. S. No. 1 and from 80 to 90 percent of these No. 1 peaches are classified within the 2-inch size minimum. In 1939, 192 growers marketing 793,385 bushels of peaches graded 68 percent of them U. S. No. 1; 7 percent, Utility; and 25 percent were Unclassified (Table 6). In 1938, 126 growers graded their peaches 71 percent U. S. No. 1; 7 percent, Utility; and 22 percent were Unclassified.

[1] LLOYD, J. W. Precooling rail shipments of Illinois peaches. Ill. Agr. Exp. Sta. Bul. 455. 1939.

TABLE 6.—GRADE DESIGNATION OF PEACHES REPORTED BY 126 GROWERS IN ANNA AND CENTRALIA DISTRICTS IN 1938 AND BY 192 GROWERS IN 1939

Year and district	Number of growers reporting	Bushels sold	Percent sold as—		
			U. S. No. 1	Utility	Unclassified
1938					
Anna district	110	372 485	74	5	21
Centralia district	16	87 517	58	18	24
Both districts	126	460 002	71	7	22
1939					
Anna district	107	401 073	68	7	25
Centralia district	85	392 312	68	7	25
Both districts	192	793 385	68	7	25

TABLE 7.—SIZE CLASSIFICATION OF 540,134 BUSHELS OF U. S. No. 1 PEACHES FROM ANNA AND CENTRALIA DISTRICTS, 1939

District	Bushels sold	Percent sized at a minimum of—					
		2½ inches	2¼ inches	2⅛ inches	2 inches	1⅞ inches	1¾ inches
Anna district	274 120	1.5	13.8	.2	81.0	...	3.5
Centralia district	266 014	.5	1.5	...	88.4	.2	9.4
Both districts	540 134	1.0	8.0	(a)	84.6	(a)	6.4

[a]Less than .1 percent.

Of the 540,134 bushels of U. S. No. 1 peaches included in the 1939 survey, 8 percent were classified 2¼-inch minimum; 84.6 percent, 2-inch minimum; and 6.4 percent, 1¾-inch minimum (Table 7). In general, peaches from the Anna district were shown to average somewhat larger than those from the Centralia district.

Selling the Crop

Because large-scale peach production in Illinois is concentrated in a few areas relatively near large consuming markets, various wholesale buyers, brokers, and representatives of sales agencies are attracted to the territory and maintain headquarters there during the peach movement. Some of these buyers are connected with city wholesale firms; others operate independently, traveling from one important producing area to another; still others are local men who make a business of buying or handling home-grown products. Large numbers of truckers appear daily seeking products for their trade routes or places of business. Consignment to city markets has always been a method available to peach growers and there are also local markets where products can be sold. Thus the Illinois grower is provided with a wide choice of outlets where he can sell either on a cash, consignment, or brokerage basis.

Local markets. At Anna and Cobden local fruit and vegetable markets are operated by the city under the direct supervision of a market master. These two markets serve as meeting places for buyers and sellers, as well as convenient points at which to concentrate supplies. Covered space is provided, and there is room for incoming and outgoing trucks. Since various types of buyers, handlers, and truckers

Fig. 5.—The local fruit and vegetable market at Cobden, as well as the one at Anna, is a center for marketing peaches from southern Illinois.

maintain headquarters here during the peach harvest, a farmer can come to either of these markets and readily find a cash buyer or an agent who will handle his load or crop for a fee. If he wishes to consign to a city wholesale commission firm, trucks can be hired to haul his product.

The total sales made in the markets at Cobden and Anna are greater than the amount of peaches passing thru them. Dealers here sell large quantities which are loaded directly into the trucks of the buyers or haulers at the farmer's packing shed or in railroad cars instead of being brought to the market place.

At various points thruout the intensive peach-growing area numerous small privately operated local markets are maintained where peaches are concentrated and bought outright from growers or handled for a fee.

Sales at the farm or packing shed. Growers and their agents sell a considerable quantity of peaches to truck-lot buyers directly from the farm or packing shed. During the height of the harvest large growers pack the equivalent of several carloads in one day and in some instances the output is sufficiently large to justify the full-time service of a sales agent. When a sales agent is regularly employed at the farm, truck-lot buyers come directly to the packing shed to make their purchases. It is a common practice also for growers who sell thru a broker or an agent to reserve the right to make some direct sales usually at the farm or packing shed. Often the broker or agent handles all the packed U. S. No. 1 fruit and the grower disposes of the unclassified or lower grades mostly to merchant truckers who come to the farm. Soft and overripe peaches usually are sold at the shed to buyers of small lots or directly to consumers.

Sales service of cooperatives and other organizations. The Illinois Fruit Growers Exchange provides state-wide sales service for growers. A cooperative grading and packing organization at Etherton also sells for a small number of growers in Jackson county. Limited sales service also is offered by the Cobden Fruit and Vegetable Shipping Association and other similar organizations.

Roadside markets. A few growers operate roadside markets where peaches are sold either wholesale or retail. This is not a common practice, however, in the concentrated growing areas. In some

Fig. 6.—Numerous privately owned small markets, such as the one shown above, are operated locally in the peach-producing territory.

cases where orchards are located on roads that are little traveled or unimproved, growers who do their own selling have found it advantageous to operate roadside markets on the main highway primarily as a means of attracting truckers and wholesale buyers rather than as

Fig. 7.—Buyers of a large proportion of the Illinois peach crop truck the produce directly from the grower's shed.

retail outlets. In the main, growers in the peach areas prefer to sell in wholesale lots whether they sell at roadside markets or by some other method.

Sales outlets used by growers in 1938 and 1939. In marketing surveys made in 1938 and 1939 the sales outlets used by peach growers were listed to show the type of buyer or handler and whether the sale was made by the grower or was handled thru an agent (Table 8). The market and the place of sale were not considered. For example, peaches sold at local markets were reported according to type of buyer or agent and not as sales on the local market.

In both 1938 and 1939 the sales outlets used most by Illinois peach growers were: (1) sales thru brokers or sales agents, (2) outright sales to merchant truckers, and (3) outright sales to wholesale dealers. More peaches were sold thru agencies than were sold outright in both years. Sales thru agencies made up 67 percent of all sales in 1938 and 56 percent of the total in 1939. One reason for the decrease in the

TABLE 8.—SALES OUTLETS USED BY 116 ILLINOIS PEACH GROWERS IN 1938 AND 192 GROWERS IN 1939

Sales outlet	Percent of peaches sold thru outlet indicated	
	1938	1939
Outright sales, *total*	33.1	44.2
Merchant truckers	18.3	19.7
Wholesale dealers, local and city	10.0	13.0
Chain-store buyers	2.3	3.0
Retail merchants	....	2.3
Consumers[a]	2.5	6.2
Sales thru agencies, *total*	66.9	55.8
Brokers	56.0	46.5
Cooperative organizations	9.4	5.2
City commission merchants	1.5	4.1
Total bushels sold	454 449	793 385

[a]Includes some small-lot local buyers not classified.

proportion of sales thru agencies in 1939 was the lower price for peaches, which brought about an increase in the activity of merchant truckers who buy outright for cash.

Deciding upon the sales outlet. In deciding which sales outlet is likely to be most profitable the grower must consider several things. The location of his orchard with respect to markets and traffic is important in deciding whether to sell outright to truckers. Then, too, a grower must consider his own knowledge of market conditions and his own sales ability. No general conclusion can be drawn as to the desirability of one kind of sales outlet over another, for this is an individual problem. There is a tendency for growers to prefer selling for cash at the time peaches are loaded. Some may find this highly desirable, but other growers who wish to devote all their time and attention to harvesting and packing the crop may find it better to sell thru an established agency.

Intelligent selling requires much technical information regarding supplies in various parts of the country, movements to market, and supply and demand conditions in the various city markets. Because peaches are highly perishable, supplies are irregular, and production areas vary greatly in their distances from consuming markets, prices not only fluctuate frequently and sharply in the United States as a whole but they vary in different parts of the country. If growers are to assume more and more responsibility for selling their produce, a wider dissemination of market information is necessary.

Transporting the Crop

During the early 1920's when Illinois was rapidly coming to the fore as one of the important commercial peach-producing areas in the

country, practically all shipments were by rail. Numerous shipping associations sprang up in towns located on trunk railway lines. Their chief function was to concentrate supplies and to pool shipments of small growers to make up carload lots. In the last fifteen years, along with the building of more hard-surfaced roads and the improvement of motor trucks, there has been a rapid change-over to motor trucks for transporting the peach crop. Trucks have made possible more direct marketing and have provided for more flexible routing, which makes possible the speedy delivery of small lots.

This transition from rail to truck shipments necessitated many changes and brought with it many problems. Adjustments have been made and others remain to be made. Where shipping associations still exist, they now serve a different purpose. A new type of buyer, the merchant trucker, has come into being. Local concentration markets have been developed and growers sell more peaches for cash and ship less to city markets on consignment.

Proportion shipped by rail and by truck. For more than twenty years the railroads have reported to the U. S. Department of Agriculture their daily carlot shipments of peaches, as well as shipments of other fruits and vegetables. To date no means has been devised to obtain a complete check on truck shipments. However, production minus carlot shipments gives some clue to the proportion of the crop shipped by truck, since the amount not shipped by rail was either trucked to market, used at home, or not marketed for some other reasons.

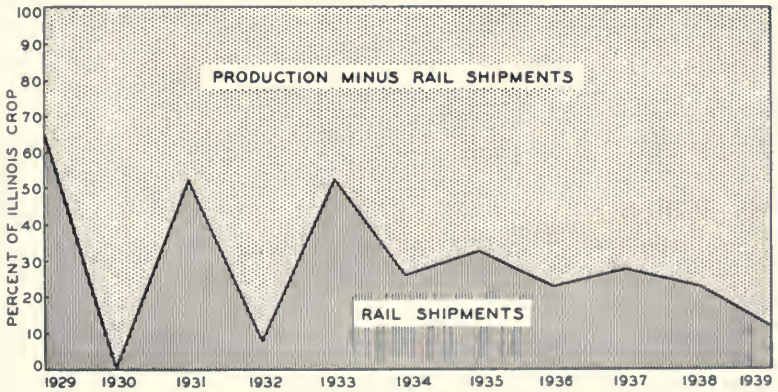

Fig. 8.—The steady decrease in rail shipments of peaches from 1929 thru 1939 indicates the trend toward increased trucklot shipments. A crop failure in 1930 and a light crop in 1932 account for the small portions shipped by rail in these years.

TABLE 9.—PROPORTION OF RAIL AND TRUCK SHIPMENTS OF PEACHES MADE BY 126 GROWERS IN ANNA AND CENTRALIA DISTRICTS IN 1938 AND 192 GROWERS IN 1939

Year and district	Number of growers	Bushels sold	Percent of crop transported by—	
			Truck	Rail
1938				
Anna district	110	364 540	61.1	38.9
Centralia district	16	84 167	69.2	30.8
Both districts	126	448 707	62.7	37.3
1939				
Anna district	107	374 889	71.3	28.7
Centralia district	85	371 638	87.8	12.2
Both districts	192	746 527	79.5	20.5

In 1929 Illinois produced 2,864,000 bushels, or 7,232 cars of peaches; rail shipments amounted to 4,637 cars, or 64 percent of the total production (Fig. 8). A part of the remaining 36 percent was transported by motor vehicles. In 1939 the state produced 2,057,000 bushels, or 5,194 cars of peaches, and rail shipments totaled only 605 cars, or 12 percent of production. A large portion of the other 88 percent of the crop was trucked.

Between 1929 and 1934, except in years when there was little need to seek distant markets because the crop was very light, shipments by rail ranged from 52 to 64 percent of production. Since 1934 carlot shipments have only ranged from 12 to 32 percent of production.

The extent to which trucks have been used in transporting peaches to market has been shown by surveys. Back in 1929 only 17 percent of the Illinois peach crop reported was transported by motor vehicles and 83 percent was carried by rail.[1] Surveys made in the Anna and Centralia districts in 1938, when 126 growers reported, and in 1939, when 192 growers reported, showed a completely changed situation (Table 9). In 1938 there was a 63-percent movement by truck; in 1939, an 80-percent movement. By 1941, according to the estimates of the State Department of Agriculture, 85 percent of the Illinois crop moved by truck.

Kind of truckers. Truckers who haul peaches in Illinois operate under various plans. In general, they come under one of these three classifications:

1. *A merchant trucker,* who buys a load of goods, transports it to market, and then sells it. His sales outlet might be a wholesale market, retail stores, open-air markets, or he might sell his goods direct to consumers.

[1]Ill. Agr. Exp. Sta. Ann. Rpt. 43, pp. 238-239. 1930.

TABLE 10.—NUMBER AND PROPORTION OF 364 TRUCKLOADS (70,195 BUSHELS) OF PEACHES HAULED BY DIFFERENT TYPES OF TRUCKERS IN 1939

Type of trucker	Truckloads hauled		Bushels hauled	
	Number	Percent	Number	Percent
Merchant trucker	181	50	32 125	46
For-hire trucker	72	20	15 648	22
Private trucker, *total*	111	30	22 422	32
Wholesale dealer	66	18	15 093	22
Retail dealer	38	10	5 885	8
Combined wholesale and retail dealer	7	2	1 441	2

2. *A for-hire trucker,* who does not take title to the goods as the merchant trucker does. He hauls the produce for someone else, either a grower or a buyer, and is paid for performing the service.

3. *A private trucker,* who buys the peaches and takes them to his own place of business, which may be a store, a warehouse, or any other place where large quantities of produce are assembled for sale, reloading, reshipping, etc. He uses a truck merely as a convenient means of transportation.

The merchant trucker thus combines the business of trucking with that of merchandising. To the private trucker, trucking is merely a part of his marketing business, which he carries on at a permanent place.

In 1939 out of 364 truckloads of peaches, or 70,195 bushels, 50 percent was carried by merchant truckers; 20 percent by for-hire truckers; and 30 percent by private truckers (Table 10).

Markets where peaches are trucked. The most frequent outlet for peaches transported by truck in 1939 was thru the city wholesale market, according to the survey of 364 truckloads of peaches (Table 11). Of these peaches, 68 percent went to wholesale markets, 25 percent went direct to retail establishments, 1 percent direct to consumers, and 6 percent to unknown destinations. Most of the unknown destinations were so listed because the trucker was unwilling to divulge the information.

TABLE 11.—KINDS OF MARKETS RECEIVING DIFFERENT PROPORTIONS OF 364 TRUCKLOADS (70,195 BUSHELS) OF ILLINOIS PEACHES IN 1939

Kind of market	Truckloads received		Bushels received	
	Number	Percent	Number	Percent
City wholesale market	218	60	47 813	68
Retail establishment	99	27	17 396	25
Consumers (direct)	23	6	874	1
Unknown destination	24	7	4 112	6

Peaches going direct to retail establishments, as shown in this survey, included those hauled by both merchant and private truckers. The private truckers were, of course, buying for their own retail outlets; but the merchant truckers for the most part, operating on regular jobbing routes, supplied their customers with other seasonal commodities as well as with peaches.

While some truckers do make it a practice to move peaches directly from the farm to the consumer, relatively few peaches are handled in this way. The peddler type of merchant trucker, who sells direct to the consumer, is of little importance in the marketing situation because peaches are highly perishable, load costs are relatively high, and there is a great deal of risk due to a sensitive market. The peddler buys mostly small lots of soft and off-grade peaches, and in many cases trucking and selling are only a side line.

Length of truck hauls. Trucked peaches are now hauled long distances and are distributed in a large number of states. Only 18 percent of the 364 truckloads of peaches included in the 1939 survey moved 200 miles or less to market (Table 12). About 60 percent moved between 201 and 450 miles, and about the same quantity moved each of the 50-mile intervals in that range. The 364 truckloads were distributed at various points in 16 states, the longest hauls being to San Antonio (900 miles) and to Dallas and New Orleans, which are each about 700 miles distant.

The extensive use of trucks for hauling peaches long distances has developed only within the last ten or twelve years. At first the trucks took care of short hauls and the railroads continued to carry peaches to distant markets. Back in 1929 very few Illinois peaches

TABLE 12.—RADIUS OF OPERATION OF DIFFERENT TYPES OF TRUCKERS HAULING 364 TRUCKLOADS (70,195 BUSHELS) OF ILLINOIS PEACHES IN 1939

Miles hauled from production point	Percent of total hauls in radius			
	Merchant trucker	For-hire trucker	Private trucker	All truckers
50 or less	.7	.9	....	.5
51 to 100	4.1	2.6	6.6	4.6
101 to 150	6.7	1.2	9.0	6.2
151 to 200	5.2	7.4	8.5	6.7
201 to 250	8.5	20.0	13.4	12.6
251 to 300	10.6	15.8	13.1	12.5
301 to 350	15.9	18.5	11.4	15.1
351 to 400	16.5	6.0	3.6	10.1
401 to 450	12.2	15.1	7.3	11.2
451 to 500	10.0	5.7	6.9	8.0
501 to 550	4.6	1.3	2.8	3.3
551 to 600	1.7	....	7.2	3.1
601 to 650	.9	4.2	9.3	4.5
651 to 700	1.1	1.3	.9	1.1
701 or more	1.3	....	....	.5

were trucked 200 miles or more, as revealed by the survey made by Lloyd and Newell.[1]

Problems caused by increased use of trucks. Some of the more acute problems which have arisen as a result of the increased use of motor trucks in marketing peaches are:

1. *Lack of a complete source of information regarding shipments and arrivals in terminal markets.* When shipments of fruits and vegetables were made entirely by rail, any buyer or seller could keep ac-

Fig. 9.—Increased trucklot shipments of fruits and vegetables caused this traffic congestion in the South Water Market in Chicago.

curately informed at all times as to market supplies. For years the market news service of the U. S. Department of Agriculture has made daily reports of carlot shipments as well as of arrivals in the principal markets. Now carlot-shipment information has lost much of its value because of the large proportion of the peach crop moved by truck. Except in a few city markets no records of truck receipts

[1]Ill. Agr. Exp. Sta. Ann. Rpt. 43, pp. 238-239. 1930.

are made, and no satisfactory means has been devised for reporting shipment from the producing area.

2. *Traffic congestion in large city wholesale markets.* Most city wholesale produce markets were built to care for rail and boat shipments. With the development of motor-truck transportation, facilities for receiving and displaying trucklot shipments are inadequate in many markets. As a result traffic congestion has become a serious problem.

As an aid in deciding what action might be taken to relieve some of the pressing problems created by the increased use of trucks, a traffic survey in the South Water Market, Chicago, was made in June, 1940, by the Bureau of Agricultural Economics, U. S. Department of Agriculture, in cooperation with the Department of Agricultural Economics, University of Illinois. Causes of traffic congestion were investigated and recommendations were made involving readjustments of methods and practices in the market.[1]

3. *State laws restricting truck movements.* Variations in laws governing motor-truck operations in different states have led to much confusion. In some states the regulations covering tonnage, equipment, speed, width and height of truck, hours of labor, mileage, and taxes can be regarded as trade barriers. The efficient marketing of Illinois peaches requires a free flow of trucklot shipments across various states. Consequently more uniform and reasonable state laws are needed.

COMPETITION, SUPPLIES, AND PRICES

The Illinois grower is primarily concerned with the volume of peaches which reach market from other sections at approximately the same time that his crop ripens. This volume determines the amount of competition he has to meet and is of much more importance to him than the size of the total U. S. crop or the average seasonal price paid to farmers.

Because of variations in production among the different sections and shifts in ripening dates, supplies of peaches are unevenly distributed thruout the marketing season. This irregularity in the flow of peaches to market presents one of the major marketing problems. When the crop does come on, it must be utilized within a short time after harvest because it is highly perishable. Hence prices will change frequently thruout the season in accordance with fluctuations in current supplies.

[1]Traffic survey in the South Water Market, Chicago. U. S. Department of Agriculture in cooperation with the University of Illinois (mimeo.). June, 1940.

Competition Between Illinois and Other States

The size of the crop in the competing area, the time when this crop ripens, and the distance it must be moved to market, all affect the amount of competition between Illinois and other states. The time when the crop ripens and is moved to market is indicated fairly accurately by the records of carlot shipments, which are perhaps a clearer index than anything else to the competition among states. Carlot shipments, however, do not give the complete competitive picture, for the proportionate amount of peaches shipped by rail varies from one area to another and in some sections trucks are used almost entirely to transport the crop.

Carlot shipments from a group of eastern states, including Virginia, West Virginia, Maryland, Delaware, and New Jersey, coincide more closely with shipments from Illinois than those from any other state or group of states (Fig. 10 and Table 23, Appendix). Occasionally the Colorado and Illinois shipments coincide or overlap. Usually the Georgia crop has been shipped by the time the Illinois harvest begins, but the last shipments from North Carolina, South Carolina, Arkansas, Tennessee, and Kentucky often overlap those from Illinois. First arrivals from Pennsylvania sometimes compete with the last of the Illinois crop.

The extent to which shipments from the different states overlap the Illinois harvest varies, of course, from year to year. For example, in 1934 the peaks of the Colorado and the Illinois movements almost coincided; in 1935 and 1937 a considerable movement from Colorado occurred before the peak was passed in Illinois; in 1940 the shipments overlapped but the Illinois crop was almost a failure. In 1936, 1938, 1939, and 1941 no serious competition developed between Illinois and Colorado.

In August, at about the time when volume shipments are made from Illinois, the total carlot shipments in the United States decline markedly. This decline in carlot shipments is probably somewhat misleading because a drop in trucklot shipment does not necessarily accompany it. In fact, trucks are used more extensively in marketing peaches from the Midwest and the eastern states than in handling the southern crop. For example, Michigan, one of the leading peach-producing states, ships little by rail. Some of the peaches trucked from this state early in the season compete with the Illinois crop, as do peaches trucked from Indiana and other nearby states.

Each producing section has a more or less definite marketing territory into which it sends most of its peaches, but the limits of this

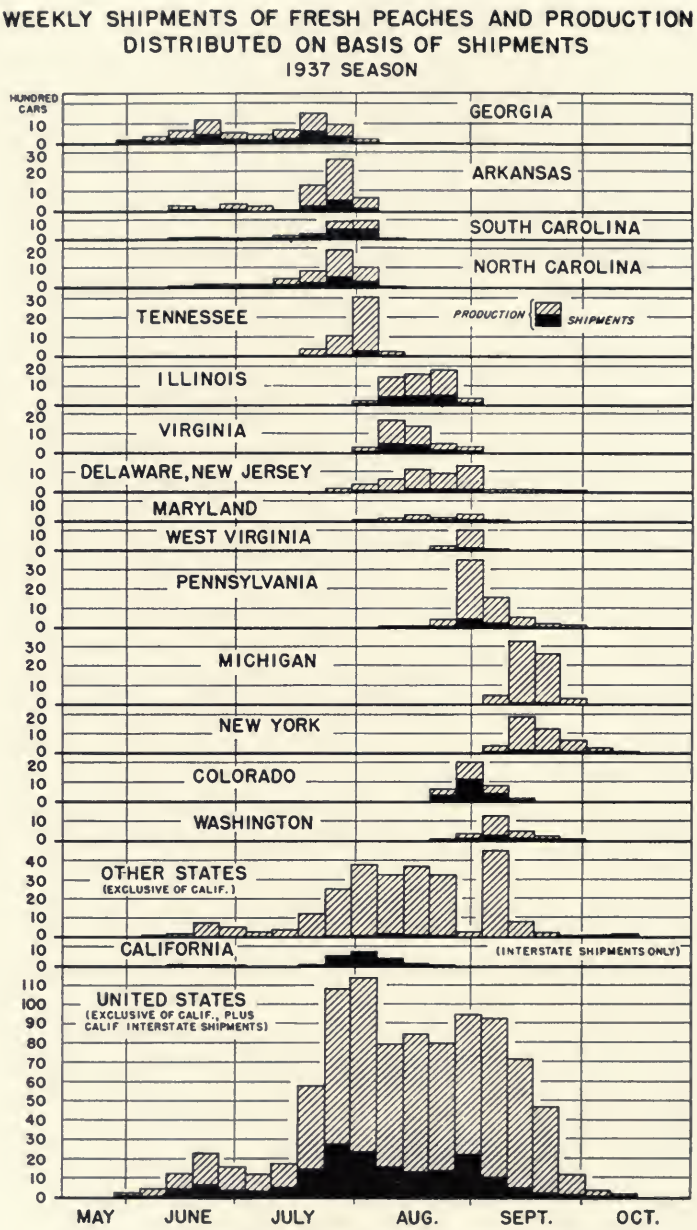

Fig. 10.—The weekly shipments of peaches and the volume produced in the United States during different weeks of the 1937 season show that Illinois enjoyed a favorable niche in the national market. *(This graph is reproduced from one issued by the General Crops Section, Agricultural Adjustment Administration, U. S. Department of Agriculture.)*

territory may change from year to year depending upon available supplies in different parts of the country. One year Illinois may have an outlet for peaches in the northeastern states and in another year this outlet may be almost closed. Year in and year out, however, a large portion of Illinois peaches are marketed in the Midwest, and the normal outlets for peaches grown in the eastern states are eastern markets. Generally prices received by Illinois growers are affected more by overlapping of shipments from Arkansas, North and South Carolina, and nearby states, which normally supply the same market areas, than by the overlapping of shipments from New Jersey, Pennsylvania, and other eastern states. The time that elapses between the completion of harvest in a given area and the disappearance of the peaches from that area from the markets will also affect competition. In other words, accumulated supplies in city markets affect the price of the fresh produce coming in. Not until these accumulated supplies are disposed of can the market be adjusted to supplies from new sources. Often several days after harvests have been completed in the southern states the last of these crops are still competing with the Illinois peaches.

Whether or not there are large accumulations of peaches in city markets when the Illinois harvest begins depends not only upon the size of the crop preceding the Illinois harvest but also upon the way in which these crops flow to market. A sudden large increase in shipments generally will result in piling up supplies in city markets until there is an equation of supply and demand. Should these increases occur just previous to the Illinois harvest, markets are likely to be weak when Illinois peaches arrive, depending upon the extent to which markets were previously supplied. Thus it can easily be seen that accumulation of supplies, as well as overlapping of shipments, affects the amount of competition between crops of the different areas.

No serious overlapping of shipments from Illinois and the southern states occurred in either 1938 or 1939. Yet in 1939 the Illinois shipping-point price for peaches at the beginning of the season was $1.00 to $1.25 a bushel, as compared with $1.75 to $2.00 in the previous year. The higher price paid for peaches in 1938 can be accounted for, at least in part, by the readiness with which supplies were distributed previous to the opening of the Illinois harvest. The movement of the crop from the southern states was not so evenly distributed as in the following year, but a few weeks previous to the beginning of the Illinois harvest a peak in supplies and a corresponding decline in prices occurred. Because of the low price, the last of the southern

crop moved rapidly, so that when the Illinois crop was ready for market supplies were light and the market was strong. In 1939, on the other hand, supplies were evenly distributed thruout most of the Georgia deal and prices were maintained at comparatively high levels. As total supplies of peaches in city markets mounted with the increased shipments from Arkansas and the Carolinas, consumption failed to keep pace until prices were adjusted to a lower level. While the adjustment was being made, supplies accumulated and the market was weak when Illinois peaches were ready to move.

Supplies and Prices

As every producer knows, prices tend to be low when the supply of a given product is large and they tend to be high when the supply is light. With a crop such as late potatoes, which can be stored several months and distributed thruout the year in accordance with demand, the size of the total crop is highly important as a price-determining factor thruout the season. Prices of such products fluctuate within a rather narrow range, and these changes occur gradually. With a perishable crop such as peaches, supply and price often vary much from week to week and even from day to day. As a result there are wide and frequent fluctuations in prices at market centers, and prices paid to producers vary widely as harvesting progresses from one section to another.

In twenty-one large peach producing states the supplies of peaches, as shown by weekly carlot shipments and production distributed on basis of shipments, varied greatly from week to week in the years 1938, 1939, 1940, and 1941 (Figs. 11 and 12). In each of these years two peaks were reached: the first one occurred in late July as shipments from Georgia, North and South Carolina, Arkansas, and Tennessee overlapped; and the second peak came in late August or the first of September when crops were harvested simultaneously in Colorado, Pennsylvania, Michigan, Ohio, and other states harvesting a late crop. In a typical year, 1939, estimated weekly supplies from these twenty-one states varied from less than 3,000 cars to more than 10,000 cars after the start of the Elberta season during the second week in July. The amount that supplies vary during the season and the time of heavy and light marketings change from year to year with differences in the size of the crop and the ripening dates. This irregularity in the movement of the different peach crops makes it difficult to make advanced predictions about the market with any degree of assurance and thus constitutes one of the major marketing problems.

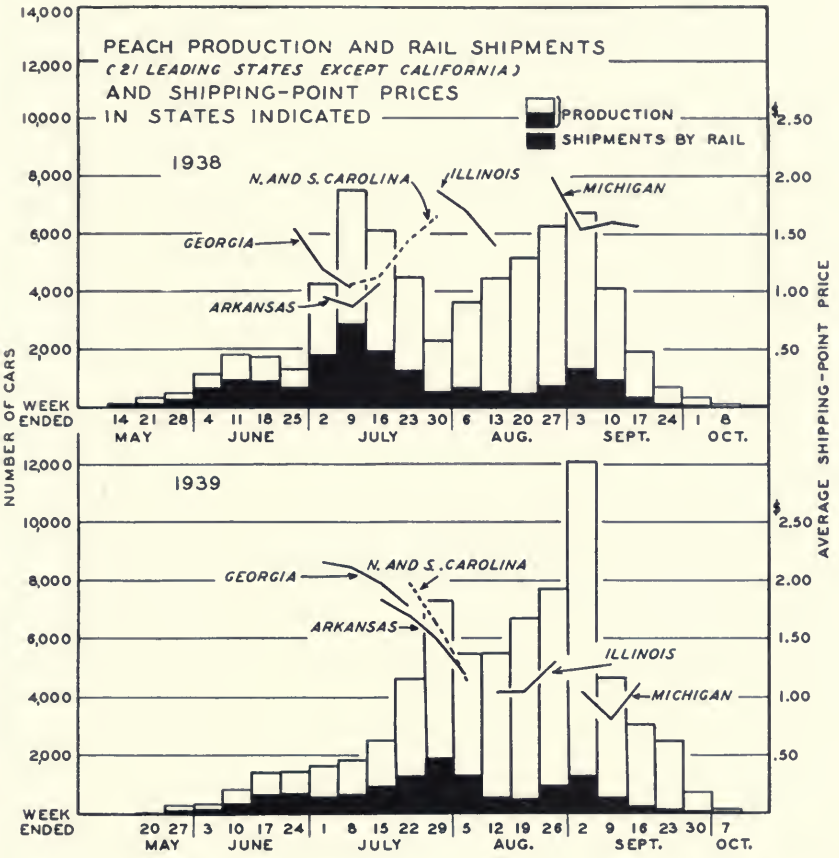
PEACH PRODUCTION AND RAIL SHIPMENTS
(21 LEADING STATES EXCEPT CALIFORNIA)
AND SHIPPING-POINT PRICES
IN STATES INDICATED
PRODUCTION
SHIPMENTS BY RAIL
1938
N. AND S. CAROLINA
ILLINOIS
MICHIGAN
GEORGIA
ARKANSAS
NUMBER OF CARS
AVERAGE SHIPPING-POINT PRICE
WEEK ENDED
14 21 28 | 4 11 18 25 | 2 9 16 23 30 | 6 13 20 27 | 3 10 17 24 | 1 8
MAY JUNE JULY AUG. SEPT. OCT.
1939
GEORGIA
N. AND S. CAROLINA
ARKANSAS
ILLINOIS
MICHIGAN
20 27 | 3 10 17 24 | 1 8 15 22 29 | 5 12 19 26 | 2 9 16 23 30 | 7
MAY JUNE JULY AUG. SEPT. OCT.

Fig. 11.—The weekly volume of peaches for the twenty-one leading states except California was small when the Illinois harvest began in 1938. This situation was caused by a wider spread than usual between the crop in the southern states and in Illinois. As a result shipping-point prices in Illinois were high. In 1939 the volume marketed was large when the Illinois harvest began, and prices were low. *(Shipping-point prices are weekly averages for U. S. No. 1 peaches.)*

Shipping-point prices. Average weekly shipping-point prices of peaches in general varied with the supply, as shown by the prices for 1936-1941 reported by the market news service of the U. S. Department of Agriculture cooperating with the state departments of agriculture in Georgia, North and South Carolina, Arkansas, Illinois, and Michigan (Table 13).

The price pattern, as well as the supply pattern, varied from year

to year, as can be seen by a study of the U. S. Department of Agriculture price reports for the different states (Figs. 11 and 12). In

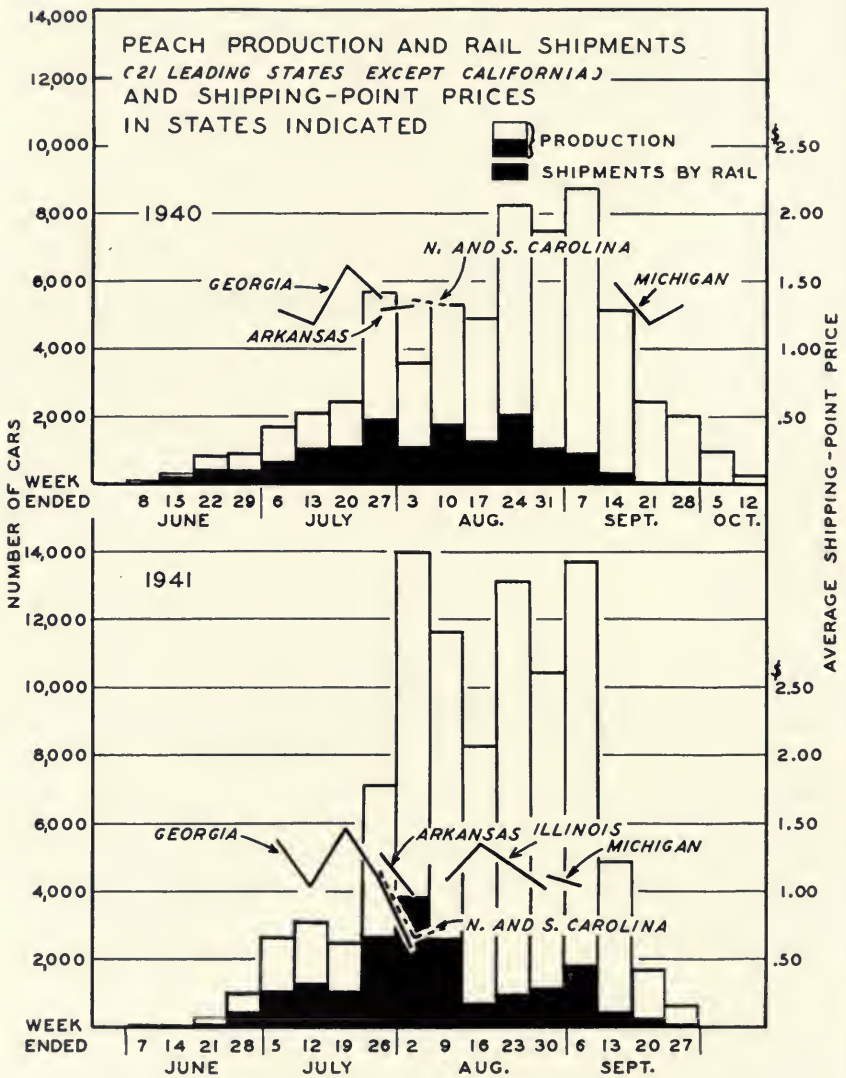
PEACH PRODUCTION AND RAIL SHIPMENTS
(21 LEADING STATES EXCEPT CALIFORNIA)
AND SHIPPING-POINT PRICES
IN STATES INDICATED
PRODUCTION
SHIPMENTS BY RAIL
1940
GEORGIA
ARKANSAS
N. AND S. CAROLINA
MICHIGAN
1941
ILLINOIS
NUMBER OF CARS
AVERAGE SHIPPING-POINT PRICE
WEEK ENDED
8 15 22 29 6 13 20 27 3 10 17 24 31 7 14 21 28 5 12
JUNE JULY AUG. SEPT. OCT.
7 14 21 28 5 12 19 26 2 9 16 23 30 6 13 20 27
JUNE JULY AUG. SEPT.

Fig. 12.—In 1940 there was a near failure of the peach crop in Illinois. In 1941 total weekly volumes of peaches for the twenty-one leading states except California were very large and prices dropped to low levels in the southern states. Shipping-point prices were higher during the Illinois harvest. *(Shipping-point prices are weekly averages for U. S. No. 1 peaches.)*

TABLE 13.—AVERAGE SHIPPING-POINT PRICES PER BUSHEL FOR PEACHES DURING DIFFERENT WEEKS IN ILLINOIS AND SOME OF THE IMPORTANT COMPETING STATES, 1936-1941[a]

Week ended	Georgia	North and South Carolina	Arkansas	Illinois	Michigan
1936					
July 4	$1.40[b]	....	....	....	....
July 11	1.96[b]	....	....	....	....
July 18	2.47	....	$2.28	....	....
July 25	1.23	$1.39	1.50	....	....
Aug. 1	1.48	1.84	1.62	....	....
Aug. 8	....	1.90	....	....	....
Aug. 15	....	....	....	....	....
Aug. 22	....	....	....	....	....
Aug. 29	....	....	....	....	....
Sept. 5	....	....	....	....	....
Sept. 12	....	....	....	....	....
Sept. 19	....	....	....	....	....
.....	....	....	....	....	....
1937					
July 3	$2.68[b]	....	....	....	....
July 10	2.90[b]	....	....	....	....
July 17	3.32[b]	....	....	....	....
July 24	2.35	$2.30	$2.32	....	....
July 31	....	1.72	1.70	....	....
Aug. 7	....	1.31	1.49	....	....
Aug. 14	....	....	....	$1.35	....
Aug. 21	....	....	....	1.51	....
Aug. 28	....	....	....	1.46	....
Sept. 4	....	....	....	....	$1.63
Sept. 11	....	....	....	....	1.50
Sept. 18	....	....	....	....	1.28
Sept. 25	....	....	....	....	1.05
1938					
June 25	$1.54[b]	....	....	....	....
July 2	1.19	....	$ .96	....	....
July 9	1.06	$1.04	.88	....	....
July 16	1.05	1.12	1.06	....	....
July 23	....	1.44	....	....	....
July 30	....	1.66	....	$1.87	....
Aug. 6	....	....	....	1.70	....
Aug. 13	....	....	....	1.40	....
Aug. 20	....	....	....	....	....
Aug. 27	....	....	....	....	$1.98
Sept. 3	....	....	....	....	1.54
Sept. 10	....	....	....	....	1.60
Sept. 17	....	....	....	....	1.57
1939					
.....	....	....	....	....	....
July 1	$2.16[b]	....	....	....	....
July 8	2.12[b]	....	....	....	....
July 15	1.98	....	$1.84	....	....
July 22	1.78	$1.97	1.70	....	....
July 29	....	1.60	1.49	....	....
Aug. 5	....	1.15	1.16	....	....
Aug. 12	....	....	....	$1.04	....
Aug. 19	....	....	....	1.05	....
Aug. 26	....	....	....	1.31	....
Sept. 2	....	....	....	....	$1.04
Sept. 9	....	....	....	....	.81
Sept. 16	....	....	....	....	1.12
1940					
July 6	$1.28	....	....	....	....
July 13	1.18	....	....	....	....
July 20	1.62	....	....	....	....
July 27	1.37	....	$1.29	....	....
Aug. 3	....	$1.36[c]	1.32	....	....
Aug. 10	....	1.47[c]	....	....	....
Aug. 17	....	....	....	....	....
Aug. 24	....	....	....	....	....
Aug. 31	....	....	....	....	....
Sept. 7	....	....	....	....	....
Sept. 14	....	....	....	....	$1.49
Sept. 21	....	....	....	....	1.19
Sept. 28	....	....	....	....	1.33
1941					
July 5	$1.38[b]	....	....	....	....
July 12	1.04[b]	....	....	....	....
July 19	1.47	....	....	....	....
July 26	1.08	$1.15[c]	$1.28	....	....
Aug. 2	.59	.65[c]	.98	....	....
Aug. 9	....	.72[c]	....	$1.08	....
Aug. 16	....	....	....	1.36	....
Aug. 23	....	....	....	1.19	....
Aug. 30	....	....	....	1.02	$1.11
Sept. 6	....	....	....	....	1.04
.....	....	....	....	....	....
.....	....	....	....	....	....
.....	....	....	....	....	....

[a]Unless otherwise stated, prices are based on quotations for U. S. No. 1 Elberta peaches of the 2-inch size minimum. [b]Price per bushel is based on quotations for half-bushel baskets of Hileys of the 2-inch size minimum. [c]Prices for North Carolina only.

1939 shipping-point prices were above $2.00 a bushel during the second week in July; they declined to around $1.00 a bushel during the second week in August; and reached a low point of 80 cents a bushel in early September. In 1938 shipping-point prices were around $1.00 a bushel in early July and advanced to $1.90 a bushel during the last of the month; then they reached another peak of about $2.00 a bushel three weeks later.

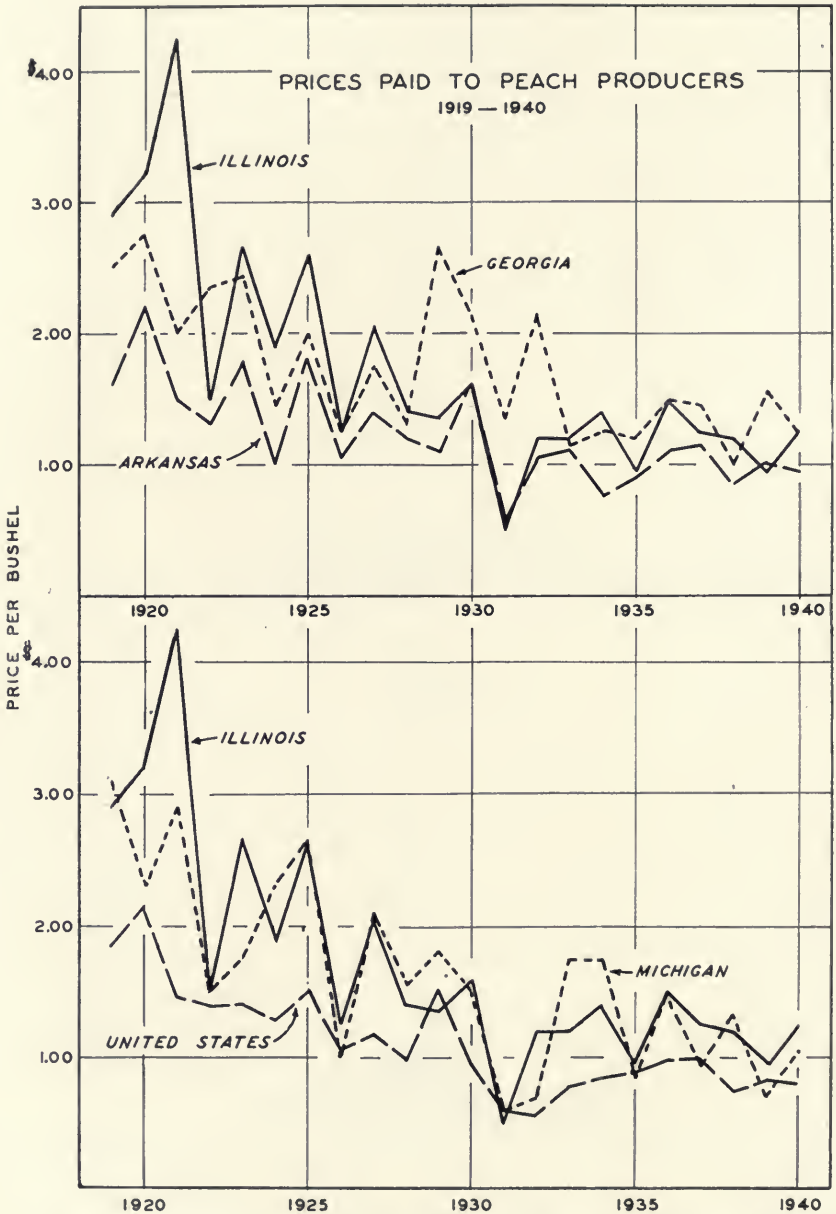

Fig. 13.—The spread between the prices paid to peach producers in Illinois and in other states has narrowed in recent years according to yearly average figures for 1919-1940.

Prices paid to producers. From state to state the annual average prices paid to producers vary widely (Fig. 13), but the range is not so wide as in the variations of the average shipping-point prices from week to week.

During the early 1920's the yearly average prices paid to producers in Illinois were consistently above those in Georgia and Arkansas. Often the difference was as much as a dollar or more a bushel. In recent years, however, Illinois growers have not had this price advantage. In fact, the Georgia price often has exceeded the Illinois price. This change has occurred because Illinois and its competitor states are producing more peaches than they did in the early twenties. Consequently supplies are relatively larger when the Illinois crop is marketed. In recent years Michigan rather than Georgia prices have more nearly coincided with those for Illinois peaches, but there were considerable differences in some years. The average annual price paid to the producer in the United States, however, has been consistently lower than in Illinois because the California price brings down the national average.

THE NATIONAL PEACH INDUSTRY

Total Production

About 40 percent of the peaches in the United States are grown in California, where they are utilized largely for canning and drying. The other 60 percent of the crop is about equally divided between the southern states and the remaining states.

From 1923 to 1941 the size of the crop in states other than California varied greatly, the largest crop in these states, 52.9 million bushels, being produced in 1931 and the smallest crop, 20.5 million bushels, in the following year. In the five-year period 1933-1937 the average annual production in all states except California was about 30 million bushels, as compared with 33.4 million bushels in 1928-1932 and 32.7 million in 1923-1927. Production during the five-year period 1938-1942 will probably exceed the 1933-1937 average of 30 million bushels. Since 1932 the production trend has been upward, altho there have been wide variations in the quantities produced from year to year.

With the exception of a light crop in 1929, production in California increased rather sharply from 15.8 million bushels in 1923 to a peak of 33.2 million bushels in 1930. From 1930 to 1935 the production trend in this state went down, but from 1935 to 1939 it turned slightly upward. In the five-year period 1933-1937 the average production of

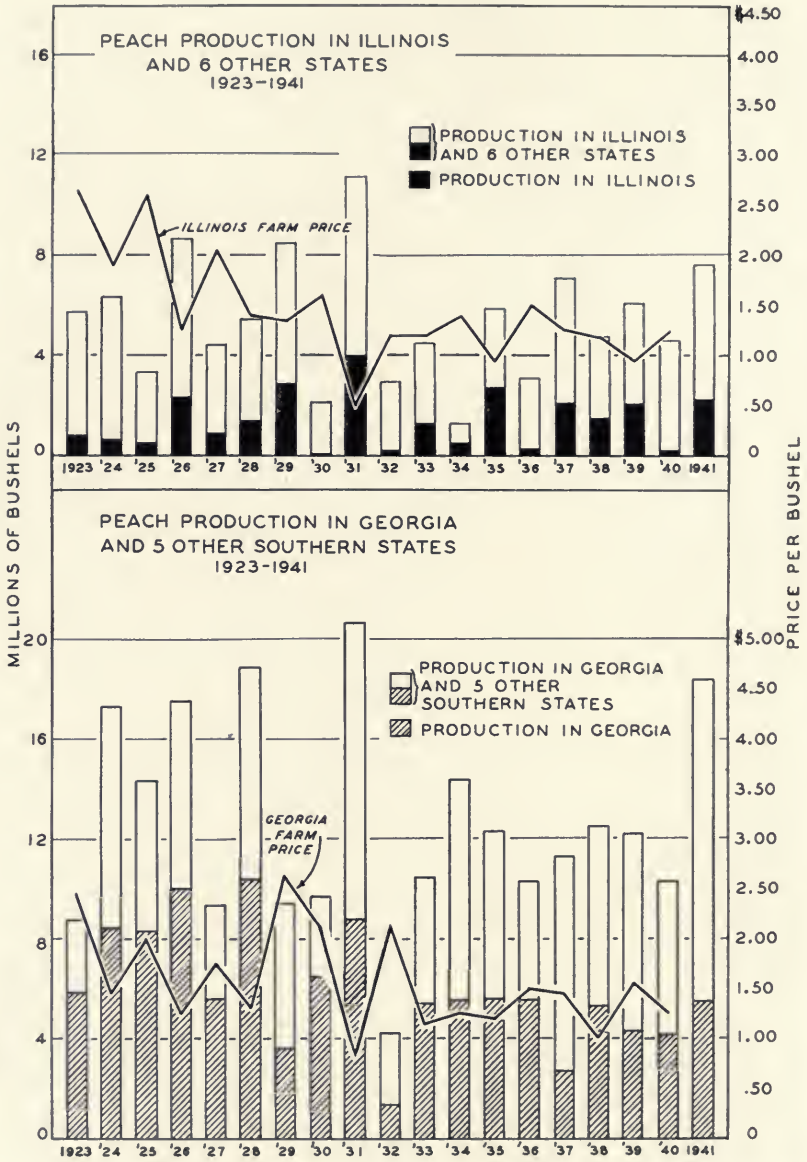

Fig. 14.—Production of peaches in Illinois and six other states which ripen crops at about the same time (New Jersey, Virginia, West Virginia, Maryland, Delaware, and Indiana) is much more irregular than in Georgia and five other southern states (North and South Carolina, Arkansas, Tennessee, and Kentucky). In the twelve-year period 1930-1941 Illinois had four crops which were near failures and one very light crop.

peaches in California was 21 million bushels; whereas it averaged 23.8 million bushels for 1928-1932 and 16.6 million bushels for 1923-1927. Little change is anticipated during the next few years.

Place of Illinois

Since 1925 Illinois has occupied a much more important position in the commercial production of peaches than it did before this date. The average annual production for the ten-year period 1928-1937 was 1,545,000 bushels, or three times the amount for 1919-1925.

Altho there has been this very definite change in peach production in Illinois, the size of the crop is quite irregular from year to year. In the ten years 1932-1941 there were six good crops and four which were very poor or near failure. Four of the good crops were 2 million bushels or more and two were close to the ten-year average of 1,545,000 bushels. Near failures were recorded in 1932 and 1940; a light crop was produced in 1934; and a very light crop in 1936 (Fig. 14 and Table 24, Appendix).

Other areas which ripen crops at about the same time as Illinois have much the same irregularity in production.

Production in the Southern States

In the six southern states there has been much more uniform production than in Illinois and other states ripening crops in August. During the same ten-year period when there were six good crops and four poor crops in Illinois (1932-1941), the six southern states had a light crop only in 1932, except Georgia, where production was also light in 1937. Otherwise the crops in the southern states were either average or above. In 1941 there was an unusually big crop, the largest since 1931.

Changes in Tree Numbers

Plantings of peach trees are never evenly distributed over a period of years. A few years of relatively high prices result in a marked expansion of acreage, and such expansion is followed by excessive production and low prices, which in turn result in losses to growers and the consequent neglect of orchards. During such a period of low prices and poor returns very few trees are planted. When the number of bearing trees is thus reduced production is of course lowered and prices begin to go up again.

Trend in the United States. Following this pattern of alternate increase and decrease, the number of peach trees in the United States advanced from 87 million in 1920 to 89 million in 1925 and then

TABLE 14.—TOTAL NUMBER OF PEACH TREES IN PRINCIPAL PEACH-PRODUCING STATES AND IN UNITED STATES IN YEARS INDICATED; PERCENT INCREASE 1935 TO 1940; AND PERCENT NOT OF BEARING AGE IN 1940
(Figures are from U. S. Census)

State	Total number of trees					Percent increase (+) or decrease (−) 1935-1940	Percent not of bearing age in 1940
	1920	1925	1930	1935	1940		
			(*thousands*)				
Georgia	12 047	14 969	9 220	7 525	8 588	+ 14.1	22.3
South Carolina	1 208	1 453	1 435	1 569	3 608	+130.0	38.5
North Carolina	3 071	4 117	3 310	3 123	3 610	+ 15.6	34.6
Arkansas	4 331	4 344	4 298	4 111	4 613	+ 12.2	32.2
Tennessee	3 040	3 799	3 666	2 699	2 434	− 9.8	26.8
Kentucky	2 362	1 994	2 166	1 671	1 610	− 3.6	33.5
Total	26 058	30 676	24 095	20 698	24 463	+ 18.2	29.5
Illinois	1 851	4 139	4 027	3 165	1 949	− 38.4	30.5
Indiana	1 428	2 047	1 929	1 335	659	− 50.6	44.1
Virginia	2 362	2 196	2 125	1 753	2 055	+ 17.2	33.1
Maryland	1 283	1 043	894	658	662	+ .6	36.7
West Virginia	2 702	1 789	1 675	1 381	1 220	− 11.7	32.7
Delaware	558	501	497	441	466	+ 5.7	32.5
New Jersey	2 821	2 426	1 783	1 397	1 065	− 23.8	35.0
Total	9 725	7 954	6 975	5 630	5 467	− 2.9	33.8
Pennsylvania	4 798	3 753	3 447	3 051	2 412	− 20.9	29.2
Michigan	2 775	3 229	3 181	2 897	4 007	+ 38.3	44.0
New York	3 697	3 297	2 469	2 143	1 901	− 11.3	31.7
Ohio	3 894	3 655	3 818	3 319	1 831	− 44.8	33.9
Total	15 159	13 935	12 915	11 411	10 151	− 11.0	36.4
Washington	699	666	760	727	800	+ 10.0	23.7
Colorado	479	408	789	758	1 044	+ 37.7	38.1
Utah	583	622	698	547	550	+ .6	26.1
Idaho	205	148	118	112	173	+ 54.5	29.3
Total	1 966	1 844	2 364	2 144	2 568	+ 19.8	30.5
California	10 425	13 151	11 856	8 856	8 336	− 5.9	20.3
Total for United States	87 264	89 035	79 046	67 069	68 867	+ 2.7	31.5

declined at the average rate of 2 million trees a year until it reached 67 million in 1935. In 1940 there were 68.9 million peach trees, an increase of nearly 2 million trees, or 3 percent, over the number in 1935 (Table 14).

While there was a net gain of 3 percent in tree numbers in the country as a whole from 1935 to 1940, during this same time some areas showed a decrease and others a very much larger increase. Some of the biggest increases in tree numbers occurred in certain of the southern states, in Colorado, and in Michigan. During this five-year period South Carolina increased its tree numbers 130 percent; North Carolina, 16 percent; Georgia, 14 percent; Arkansas, 12 percent; and both Michigan and Colorado, about 38 percent. Five eastern states which ripen crops at about the same time as Illinois showed a decline of 3 percent in tree numbers, the increase in Virginia being offset by a greater decrease in New Jersey. Tree numbers in the combined states of Pennsylvania, Michigan, New York, and Ohio showed a decline of

11 percent, the 38-percent increase in Michigan being offset by decreases in the other states.

In 1940 there was a larger percentage of peach trees in the United States not of bearing age than in any of the Census years since 1920. Of all trees reported in 1940, 31.5 percent were not of bearing age, whereas 19 percent were in this group in 1935, and 25 percent in 1930 and 1920. Individual states showing the largest percentage of trees not of bearing age were Michigan, Indiana, Colorado, and South Carolina.

Trend in Illinois. The Illinois peach acreage expanded rapidly from 1920 to 1924, changed little during the next five years, and then declined. According to U. S. Census reports there were 1,851,000 peach trees in Illinois in 1920; 4,139,000 trees in 1925; 4,027,456 trees in 1930; 3,164,541 trees in 1935; and 1,948,935 trees in 1940 (Table 15 and Fig. 15). In 1940 Illinois had 51 percent fewer trees than in 1930 and 38 percent fewer than in 1935. From 1935 to 1940 decreases in tree numbers amounted to 41 percent in the Anna district and 18 percent in the Centralia district.

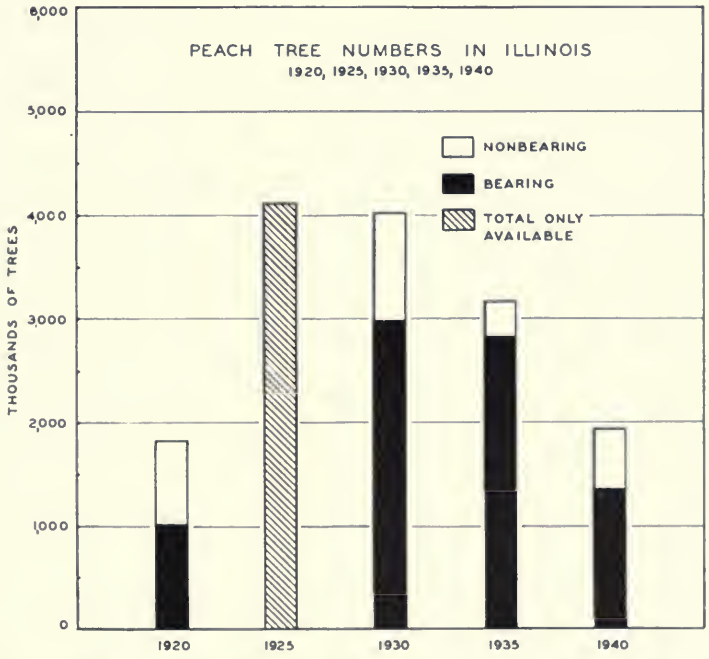

Fig. 15.—The number of peach trees in Illinois, including both bearing and nonbearing trees, was reduced more than one-half from 1930 thru 1940.

TABLE 15.—NUMBER OF PEACH TREES IN LEADING PRODUCING COUNTIES IN ILLINOIS AND TOTAL FOR STATE, 1920-1940
(Figures are from U. S. Census)

District and county	1920	1925	1930	1935	1940	Percent decrease 1935-1940
Anna district						
Union	269 697	418 085	541 349	441 499	271 721	38.5
Johnson	75 364	190 100	196 473	129 662	108 500	16.3
Jackson	97 815	200 374	268 408	209 473	119 137	43.1
Massac	7 240	31 446	82 634	80 932	53 868	33.4
Pulaski	12 407	99 190	145 418	91 644	49 764	45.6
Williamson	45 553	242 980	212 392	124 037	29 528	77.0
Total	508 076	1 182 175	1 446 674	1 077 247	632 518	41.3
Centralia district						
Marion	149 182	423 363	357 010	289 575	276 204	4.6
Jefferson	99 605	334 739	261 777	225 449	174 741	22.5
Washington	19 233	65 924	112 080	113 097	108 807	3.8
Clinton	16 212	51 163	55 176	53 238	32 444	39.1
Clay	29 875	71 402	94 349	62 553	30 469	51.3
Wayne	25 097	65 798	66 911	42 618	22 634	46.9
Total	339 204	1 012 389	947 303	786 530	645 299	18.0
Sesser district						
Franklin	24 627	106 857	141 310	96 075	47 789	50.3
Other leading counties						
Fayette	31 617	51 987	56 217	45 929	37 723	17.9
St. Clair	25 875	46 682	56 728	51 430	32 228	37.3
Madison	30 592	61 441	56 383	52 067	22 883	56.0
Randolph	15 496	27 811	43 487	40 816	22 444	45.0
Total	103 580	187 921	212 815	190 242	115 278	39.4
Total for Illinois	1 851 037	4 139 100	4 027 456	3 164 541	1 948 935	38.4

The marked reduction in tree numbers in Illinois during the ten-year period 1930-1939 was brought about by a number of conditions. From 1930 until about 1937 plantings were light because (1) the crop failed in 1930; (2) losses were sustained on the record-breaking 1931 crop; and (3) in general low prices were received during the early thirties; (4) in addition, drouths in 1934 and 1936 and the severe winter of 1935-36 took a heavy toll of peach trees in Illinois.

TABLE 16.—AGE GROUPING OF PEACH TREES OF 206 GROWERS IN SOUTHERN ILLINOIS, 1938

District and county	Number of farms	Number of trees	Percent of trees that were—				
			1 to 5 years old	6 to 10 years old	11 to 15 years old	16 to 20 years old	21 years old or more
Anna district							
Union	103	229 787	21.7	17.1	33.3	18.2	9.7
Johnson	13	54 125	33.2	3.6	8.7	54.5	0
Jackson	31	57 024	18.7	19.9	47.3	4.6	9.5
Pulaski	21	31 786	17.3	30.9	38.5	12.5	.8
Total	168	372 722	22.5	16.8	32.3	20.9	7.5
Centralia district[a]	38	99 623	49.4	5.3	17.8	22.0	5.5
Both districts	206	472 345	28.2	14.3	29.2	21.2	7.1

[a]In the Centralia district 10 reports were from Washington county, 14 from Jefferson county, and 14 from Marion county.

During the latter part of this ten-year period, in 1937, 1938, and 1939, the Illinois peach crops were near average or above, prices were fairly good, and no severe tree losses occurred. As a result, plantings were increased, and at present there is an upward trend in tree numbers in Illinois.

The fact that peach tree plantings are unevenly distributed over a period of years is illustrated by the survey made in 1938 of 206 farms in seven southern Illinois counties. Of the 472,345 peach trees

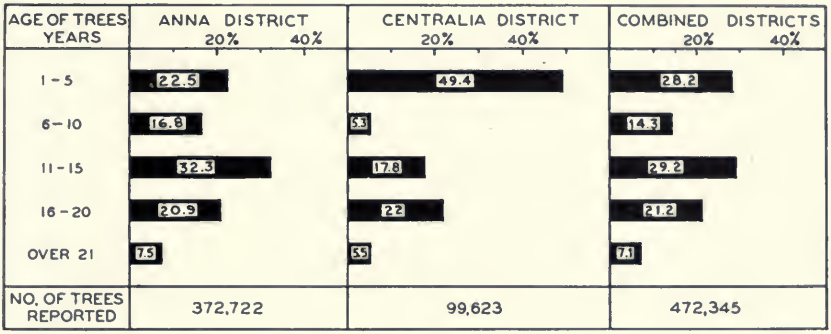

Fig. 16.—The distribution into five-year age groups of the peach trees of 206 southern Illinois growers during 1938 shows that plantings have not been evenly spaced over a period of years. Note the large proportion of trees 1 to 5 years old and the small proportion 6 to 10 years old.

reported, it was found that trees 1 to 5 years of age comprized 28 percent of all trees; those 11 to 15 years old, 29 percent; and trees 6 to 10 years old, only 14 percent (Table 16 and Fig. 16). The small percentage of trees 6 to 10 years old reflects the light plantings in the early thirties. In the Centralia district as many as 49.4 percent of the trees were 1 to 5 years of age, while in the Anna district only 22.5 percent of the trees were planted that recently.

OUTLOOK FOR ILLINOIS

Altho the Illinois peach acreage is smaller today than it was five or ten years ago, Illinois growers face increasing competition from areas where peach crops overlap the beginning and the end of their harvest. In other words, the favorable niche which Illinois has enjoyed in the national market is being crowded at both ends. For a number of years the U. S. Department of Agriculture has warned growers that

TABLE 17.—NUMBER OF PEACH TREES OF BEARING AGE AND THOSE NOT OF BEARING AGE IN ILLINOIS AND PRINCIPAL COMPETING STATES, 1930, 1935, AND 1940
(Figures are from U. S. Census)

State	1930	1935	1940	Increase (+) or decrease (−) 1935-1940	Percent increase (+) or decrease (−) 1935-1940
			Trees of bearing age		
Illinois	2 989 997	2 841 878	1 354 686	−1 487 192	− 52.3
South Carolina	1 161 006	1 176 708	2 220 539	+1 043 831	+ 88.7
North Carolina	2 674 922	2 428 063	2 361 334	− 66 729	− 2.7
Arkansas	3 238 090	3 571 003	3 128 178	−442 825	− 12.4
Tennessee	2 747 078	2 226 245	1 781 880	−444 365	− 20.0
Virginia	1 443 789	1 279 126	1 373 801	+ 94 675	+ 7.4
New Jersey	1 463 108	1 127 483	691 977	−435 506	− 38.6
Michigan	2 007 743	1 956 917	2 242 298	+285 381	+ 14.6
Colorado	454 101	621 128	645 736	+ 24 608	+ 4.0
			Trees not of bearing age		
Illinois	1 037 459	322 663	594 249	+271 586	+ 84.2
South Carolina	274 134	391 812	1 387 769	+995 957	+254.2
North Carolina	634 733	695 425	1 249 051	+553 626	+ 79.6
Arkansas	1 059 834	540 249	1 484 710	+944 461	+174.8
Tennessee	918 892	472 667	652 233	+179 566	+ 38.0
Virginia	681 027	473 580	681 120	+207 540	+ 43.8
New Jersey	320 021	269 555	372 924	+103 369	+ 38.3
Michigan	1 173 238	940 506	1 764 623	+824 117	+ 87.6
Colorado	334 565	136 979	398 309	+261 330	+190.8

more peach trees were being planted in states already producing large crops, and that subsequent danger of overproduction was arising in certain sections. This was substantiated by the 1940 U. S. Census.

Altho the net gain in peach-tree numbers from 1935 to 1940 was only 3 percent for the country as a whole, a large proportion of the increase occurred in southern states where the crops compete with the first of the Illinois crop, and in Michigan, where the harvest dovetails the last of the Illinois harvest. During this period peach trees not of bearing age were increased by nearly 1,000,000 or 254 percent, in South Carolina alone; in Arkansas nonbearing trees increased nearly 1,000,000, or 175 percent; and in Michigan the number of nonbearing trees was increased more than 800,000, or 88 percent (Table 17). These figures show that, since potential producing capacity in competing areas has been greatly increased, larger supplies may be expected for several years, particularly from competing southern states.

SUMMARY AND CONCLUSIONS

Illinois produces an average annual crop of about 1,500,000 bushels of peaches; in the ten-year period 1930-1939 it ranked eighth among the states in production. Commercial peach-growing in Illinois is confined largely to the Anna, Centralia, and Sesser districts in the southern half of the state. Orchards range in size from 5 acres to more than 100 acres, but the bulk of the crop is produced in orchard units of 25 acres or more. Altho there are more small growers than large ones, the large-scale producers control the volume of the peach crop.

Marketing Illinois Peaches

The following facts regarding the marketing of peaches in Illinois were shown by surveys based largely on sales records provided by growers:

1. As a rule, peaches are graded and packed largely by growers at farm packing sheds. Exceptions to the rule are the packing done by the central packing houses of a few orchard companies and a small amount of cooperative and custom packing.

2. Between 85 and 90 percent of Illinois peaches are of the Elberta variety. This proportion will probably decline somewhat in the future, for there have been increased plantings of some new and improved varieties.

3. The Illinois grower has a wide choice of outlets for selling peaches on either a cash, consignment, or brokerage basis. Growers sell more peaches thru agencies than they sell outright to cash buyers. The most important intermediary who deals directly with the grower is the broker or agent who operates in the producing territory. He handled 56 percent of the crop reported in 1938 and 46 percent in 1939. The two important types of outright buyers are merchant truckers and wholesale dealers.

4. In the last fifteen years, along with the construction of better highways has come a rapid change-over from rail to truck shipment of peaches. In 1938 there was a 63-percent movement by motor truck and in 1939 a movement of 80 percent, according to surveys made of 126 growers in 1938 and 192 growers in 1939. Of 364 truckloads of peaches surveyed in 1939, 60 percent moved 201 to 450 miles and the trucklots went out to as many as 16 different states.

Along with the change in methods of transportation has come the development of local cash markets, an increase in sales made at the farm, and a decline in consignment sales.

5. Transition from rail to truck shipment has created many problems in marketing peaches. The chief problems are: lack of information regarding supplies; trade barriers restricting free movement of products from state to state; traffic congestion; and lack of sufficient facilities to handle truck shipments in city markets.

Illinois and the National Market

The following comments regarding the national market and the way in which Illinois fits into it are based largely on an analysis of production, shipment and supply, and price data for the country as a whole:

1. The instability of the market is a source of the chief problems in marketing peaches. Wide variations occur in the supply from week to week thruout the season. Consequently there are sharp and frequent changes in prices both in city markets and at country points. In order to meet the situation, marketing machinery must be set up that can be adjusted easily and quickly.

Because the market changes rapidly, intelligent selling requires wide technical knowledge of the market and constant alertness. It is well for a grower to consider these requirements when he is deciding whether to sell his own crop or employ an agent.

2. The quantity of peaches harvested varies less from year to year in the southern states than it does in Illinois and the other states which ripen crops at about the same time. In the ten years from 1932 to 1941 Illinois produced four large crops of more than 2,000,000 bushels, two crops which were close to the ten-year average of 1,500,000 bushels, and four crops which were very poor or were near failures.

3. Illinois growers have long enjoyed a favorable niche in the national market. According to the present outlook however, this niche will be narrowed by increased production in competing states both at the beginning and the end of the Illinois harvest. This conclusion is based on the fact that acreages have been increased in Michigan and in the southern states, particularly in South Carolina and Arkansas.

TRANSPORTING THE CROP DURING WARTIME[1]

In August, 1942, a survey was made to determine how the shortage of tires affected the shipment of Illinois peaches. During the movement of the crop from August 6 thru 20, truck operators were interviewed in the peach-producing areas of the state and data were secured

[1]This supplement is based on data collected and summarized during August, 1942, by R. A. KELLY, Assistant in Agricultural Economics, under the direction of J. W. LLOYD, Chief in Fruit and Vegetable Marketing.

TABLE 18.—NUMBER AND PROPORTION OF 567 TRUCKLOADS (134,144 BUSHELS) OF PEACHES HAULED BY DIFFERENT TYPES OF TRUCKERS IN 1942

Type of trucker[a]	Truckloads hauled		Bushels hauled	
	Number	Percent	Number	Percent
Merchant trucker	195	34.4	47 839	35.7
For-hire trucker	143	25.2	35 692	26.6
Private trucker, *total*	229	40.4	50 613	37.7
Wholesale dealer	145	25.6	36 744	27.4
Retail dealer	21	3.7	2 380	1.8
Combined wholesale and retail dealer	63	11.1	11 489	8.5

[a]Definitions of the types of truckers are found on pages 290 and 291.

on 240 trucks hauling 567 loads (134,144 bushels) of peaches. The merchant truckers hauled a distinctly smaller proportion of the loads in 1942 than in 1939 (Tables 10 and 18).

Truck and Rail Shipments

In 1942, in spite of the tire shortage, many more Illinois peaches moved by truck than by rail. Trucks carried about 60 percent of the crop from the Anna district and as much as 85 percent from the Cen-

TABLE 19.—RADIUS OF OPERATION OF DIFFERENT TYPES OF TRUCKERS HAULING 567 TRUCKLOADS (134,144 BUSHELS) OF ILLINOIS PEACHES IN 1942

Miles hauled from production point	Number of loads	Percentage of total hauls in radius			
		Merchant trucker	For-hire trucker	Private trucker	All truckers
50 or less	10	1.5	1.4	2.2	1.8
51 to 100	95	8.2	7.0	30.2	16.8
101 to 150	41	8.7	3.5	8.3	7.2
151 to 200	58	17.0	2.1	9.6	10.2
201 to 250	44	8.7	4.2	9.2	7.8
251 to 300	60	12.3	11.9	8.3	10.6
301 to 350	77	12.8	32.1	2.6	13.6
351 to 400	68	7.7	23.1	8.7	12.0
401 to 450	32	10.3	5.6	1.8	5.6
451 to 500	15	3.1	4.2	1.3	2.6
501 to 550	24	1.5	1.4	8.3	4.2
551 to 600	17	4.6	0	3.5	3.0
601 to 650	19	3.6	2.1	3.9	3.3
651 to 700	5	0	1.4	1.3	.9
701 or more	2	0	0	.8	.4

tralia district, according to estimates.[1] The total rail shipments for the state during the Elberta season amounted to 365 cars.

While trucks carried a large proportion of the 1942 Illinois peach crop, the average length of their hauls was less than in 1939 (Tables 12 and 19).

The territory over which the peaches were distributed by rail and

[1]Marketing Illinois peaches, 1942 season. Federal-State Market News Service (mimeo.). U. S. Dept. of Agr. August 21, 1942.

TABLE 20.—SHIPMENTS OF ILLINOIS PEACHES SENT TO DIFFERENT STATES OUT OF A TOTAL OF 567 TRUCKLOADS SURVEYED AND 359 CARLOTS SUMMARIZED BY THE U. S. DEPARTMENT OF AGRICULTURE,[a] 1942

State	Carloads		Truckloads	
	Number	Percent	Number	Percent
Missouri	84	23.4	180	31.7
Illinois	67	18.6	167	29.4
Nebraska	48	13.4	25	4.4
Kansas	41	11.4	24	4.2
Minnesota	16	4.5	5	.9
Wisconsin	16	4.5	26	4.6
Michigan	15	4.2	2	.4
Texas	15	4.2	3	.5
Iowa	14	3.9	60	10.6
Louisiana	13	3.6	2	.4
Indiana	7	1.9	42	7.4
Ohio	6	1.7	4	.7
Kentucky	5	1.4	10	1.8
Oklahoma	4	1.1	2	.4
South Dakota	3	.8	0	0
North Dakota	3	.8	0	0
New York	1	.3	0	0
Mississippi	1	.3	3	.5
Arkansas	0	0	2	.4
Alabama	0	0	3	.5
Tennessee	0	0	7	1.2

[a]Marketing Illinois peaches, 1942 season. Federal-State Market News Service (mimeo.). U. S. Dept. of Agr. August 21, 1942.

by truck was similar in 1942, but truck shipments predominated in the shorter hauls. Destinations of 359 of the 365 cars of Illinois peaches shipped during the Elberta season were summarized.[1] Distribution of the 359 cars extended to markets in 18 states, as did also the distribution of the 567 truckloads of peaches surveyed (Table 20). Altho 15 of the 18 states reached by rail shipments were also served by truck, shipments by truck tended to predominate within the state and to states close to the producing area, especially Missouri, Iowa, and Indiana. Shipments by rail to more distant states, particularly Nebraska, Kansas, Minnesota, Michigan, Texas, and Louisiana were proportionately larger.

The Tire Situation for Trucks Hauling Peaches

Percentage of rated load capacity of tires utilized. The load capacity of the tires was determined by the number, size, and ply of tires. This was done according to the formula prescribed by the Office of Defense Transportation. The weight of each truckload of peaches was calculated on the basis of 53 pounds per bushel.

Approximately 72 percent of the loads ranged within 75 to 120 percent of the estimated tire capacity. Only 16 percent were below 75 percent of capacity and about 12 percent were above 120 percent

[1]Marketing Illinois peaches, 1942 season. Federal-State Market News Service (mimeo.). U. S. Dept. of Agr. August 21, 1942.

TABLE 21.—PERCENTAGE OF TOTAL RATED LOAD CAPACITY OF THE TIRES USED IN HAULING 567 LOADS OF ILLINOIS PEACHES IN 1942[a]

Type of trucker	Number of loads hauled	Percentage of loads using—			
		Under 75 percent	75 to 99 percent	100 to 119 percent	120 percent or more
Merchant trucker	195	9.8	52.8	21.5	15.9
For-hire trucker	143	5.6	45.4	42.0	7.0
Private trucker, *total*	229	27.9	38.9	20.5	12.7
Wholesale dealer	145	10.3	49.0	29.0	11.7
Retail dealer	21	47.6	19.1	19.1	14.2
Combined wholesale and retail	63	61.9	22.2	1.6	14.3
Total	567	16.0	45.3	26.3	12.4

[a]Load capacity of the tires was calculated according to the formula of the Office of Defense Transportation.

(Table 21). Very few of the truckers hauled pay loads of any kind on the trip into the peach-producing region.

Altho no data were obtained regarding load capacity in relation to the size of the truck body, it is believed that practically all loads which were above 75 percent of rated tire capacity filled the volume capacity of the truck body.

Probable service of present tires. The truck operators interviewed were asked to estimate the unused mileage in each of their tires. From such data was calculated the probable mileage the truck could be operated without recapping or renewal of any tires and the probable length of time the truck could remain in service under these conditions. The total mileage the truck was operated during the calendar year 1941 was used as a basis for estimating the period of service.

One-third of the trucks could be expected to stay in operation for less than 3 months before the poorest tire would need to be replaced (Table 22). Only 18 percent of the trucks will probably be in condition for hauling Illinois peaches in 1943 if the tires are used meanwhile at the same rate as in 1941 and are not replaced.

TABLE 22.—ESTIMATED PERIOD OF SERVICE OBTAINABLE FROM THE TIRES ON 240 TRUCKS USED IN HAULING ILLINOIS PEACHES IN AUGUST, 1942, BEFORE REPLACEMENT OF THE POOREST TIRE IS NECESSARY

Type of trucker	Number of trucks operated	Percentage of trucks that will last—				
		Under 3 months	3 to 6 months	6 to 9 months	9 to 12 months	1 year or more
Merchant trucker	103	23.3	28.2	17.5	8.7	22.3
For-hire trucker	52	36.5	26.9	7.7	19.2	9.6
Private trucker, *total*	85	44.7	21.2	11.8	4.7	17.6
Wholesale dealer	59	52.5	20.3	11.9	5.1	10.2
Retail dealer	17	23.5	23.5	11.8	5.9	35.3
Combined wholesale and retail dealer	9	33.3	22.2	11.1	0	33.4
Total	240	33.8	25.4	13.3	9.6	17.9

APPENDIX

TABLE 23.—WEEKLY CARLOT SHIPMENTS OF PEACHES MADE DURING JULY AND AUGUST IN PRINCIPAL PEACH-PRODUCING STATES, 1934-1941
(For week ended on date indicated)

State or state group	June 30	July 7	July 14	July 21	July 28	Aug. 4	Aug. 11	Aug. 18	Aug. 25	Sept. 1
1934										
Georgia	307	695	1 014	850	755	1 941	566	...	...	...
North and South Carolina	29	6	16	156	175	674	748	97	27	...
Arkansas	15	11	19	9	193	580	706	99	6	...
Tennessee and Kentucky	...	...	...	2	31	417	311	54	...	1
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	...	...	...	...	...	16	126	134	5
Pennsylvania	...	...	...	...	...	...	...	...	70	313
Washington, Idaho, and Utah	...	...	2	6	47	366	539	275	109	14
Colorado	...	...	...	2	1	1	195	1 182	389	115
Illinois	1	4	1	...	...	...	71	168	66	7
Total	352	716	1 052	1 025	1 202	3 979	3 152	2 001	801	454

	June 29	July 5	July 13	July 20	July 27	Aug. 3	Aug. 10	Aug. 17	Aug. 24	Aug. 31
1935										
Georgia	644	805	2 080	2 239	1 064	126	...	...	...	...
North and South Carolina	8	18	105	366	1 160	1 002	119	10	1	...
Arkansas	45	3	80	234	126	37	...	...	...	...
Tennessee and Kentucky	...	...	...	4	78	37	43	32	18	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	...	...	...	...	...	26	327	258	199
Pennsylvania	...	...	...	...	...	...	...	...	12	137
Washington, Idaho, and Utah	...	...	...	...	...	1	8	25	42	175
Colorado	...	...	...	...	...	...	2	1	94	864
Illinois	5	...	1	...	...	17	282	509	939	434
Total	702	826	2 266	2 843	2 428	1 220	480	904	1 364	1 809

	July 4	July 11	July 18	July 25	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29	Sept. 5
1936										
Georgia	680	623	955	2 420	1 234	...	...	...	...	...
North and South Carolina	2	40	115	280	590	862	289	...	...	...
Arkansas	4	4	140	525	363	70	2	...	...	...
Tennessee and Kentucky	...	...	...	5	86	127	36	9	...	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	...	...	...	...	1	109	451	221	38
Pennsylvania	...	...	...	...	...	...	...	...	44	40
Washington, Idaho, and Utah	...	...	...	1	4	32	48	326	796	531
Colorado	...	...	...	...	...	7	3	452	1 061	315
Illinois	1	1	...	...	...	17	66	62	...	...
Total	687	668	1 210	3 231	2 277	1 116	553	1 300	2 122	924

(Table is continued on next page)

TABLE 23.—WEEKLY CARLOT SHIPMENTS OF PEACHES MADE DURING JULY AND AUGUST *(Continued)*

State or state group	July 3	July 10	July 17	July 24	July 31	Aug. 7	Aug. 14	Aug. 21	Aug. 28	Sept. 4
1937										
Georgia	206	181	276	623	392	83	...	...	...	...
North and South Carolina	27	48	165	336	990	797	49	5	...	...
Arkansas	68	52	10	279	572	148	13	...	...	...
Tennessee and Kentucky	1	3	...	28	96	325	143	59	8	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	4	3	...	...	3	59	411	410	136	258
Pennsylvania	...	...	...	...	...	...	...	1	32	317
Washington, Idaho, and Utah	...	...	...	...	...	...	1	17	15	77
Colorado	...	...	...	...	...	1	7	2	381	1 176
Illinois	3	6	2	...	4	47	389	432	494	83
Total	309	293	453	1 266	2 057	1 460	1 013	926	1 066	1 911

	July 2	July 9	July 16	July 23	July 30	Aug. 6	Aug. 13	Aug. 20	Aug. 27	Sept. 3
1938										
Georgia	1 200	1 536	844	193	72	...	...	...	...	...
North and South Carolina	162	315	802	993	385	15	1	...	...	...
Arkansas	447	1 032	254	4	...	...	...	...	...	...
Tennessee and Kentucky	...	2	55	44	15	...	...	...	...	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	...	...	6	20	201	213	213	45	5
Pennsylvania	...	...	...	...	...	...	3	30	122	40
Washington, Idaho, and Utah	...	...	...	...	4	1	3	72	236	374
Colorado	...	...	...	...	...	...	2	4	342	911
Illinois	...	...	...	4	42	448	309	55	...	...
Total	1 809	2 885	1 955	1 244	538	665	531	374	745	1 330

	July 1	July 8	July 15	July 22	July 29	Aug. 5	Aug. 12	Aug. 19	Aug. 26	Sept. 2
1939										
Georgia	472	324	633	671	445	157	5	...	...	...
North and South Carolina	9	144	220	231	1 101	804	16	1	...	...
Arkansas	100	125	115	415	339	172	3	...	...	...
Tennessee and Kentucky	...	...	...	7	65	106	42	13	...	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	1	...	...	1	77	257	136	115	52
Pennsylvania	...	...	...	...	...	...	...	...	30	94
Washington, Idaho, and Utah	...	...	1	3	...	...	33	55	169	270
Colorado	...	...	...	...	...	...	3	3	585	846
Illinois	14	19	...	...	...	5	220	272	76	2
Total	595	613	969	1 327	1 951	1 321	579	480	975	1 264

(Table is concluded on next page)

TABLE 23.—WEEKLY CARLOT SHIPMENTS OF PEACHES MADE DURING JULY AND AUGUST *(Concluded)*

State or state group	June 29	July 6	July 13	July 20	July 27	Aug. 3	Aug. 10	Aug. 17	Aug. 24	Aug. 31
1940										
Georgia	358	607	989	980	1 395	549	150	108	9	...
North and South Carolina	5	4	40	128	115	331	1 579	725	52	...
Arkansas	41	71	22	24	440	207	16	13	...	...
Tennessee and Kentucky	...	...	...	...	...	...	...		2	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	...	6	2	...	2	1	...	180	213
Pennsylvania	...	...	...	...	...	...	...	...	2	...
Washington, Idaho, and Utah	...	...	...	2	1	2	59	155	351	337
Colorado	...	...	...	...	...	...	...	250	1 439	447
Illinois	...	5	1	...	...	...	...	6	1	...
Total	404	687	1 058	1 136	1 951	1 091	1 805	1 262	2 036	997

	June 28	July 5	July 12	July 19	July 26	Aug. 2	Aug. 9	Aug. 16	Aug. 23	Aug. 30
1941										
Georgia	427	882	855	798	1 945	1 361	291	...	...	...
North and South Carolina	38	46	353	247	437	1 727	2 082	269	52	55
Arkansas	3	83	78	13	276	690	101	5	...	...
Tennessee and Kentucky	...	...	...	...	2	68	104	38	17	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	...	5	1	...	...	5	10	102	222	221
Pennsylvania	...	...	...	...	...	...	...	...	1	113
Washington, Idaho, and Utah	...	...	...	1	2	1	2	26	221	244
Colorado	...	...	...	...	...	...	...	2	1	244
Illinois	...	11	5	...	...	...	18	229	341	138
Total	468	1 027	1 292	1 059	2 662	3 852	2 608	671	855	1 015

	June 27	July 4	July 11	July 18	July 25	Aug. 1	Aug. 8	Aug. 15	Aug. 22	Aug. 29
1942[a]										
Georgia	416	857	922	788	1 111	913	247	26	...	...
North and South Carolina	15	104	401	334	653	2 423	1 718	80	37	3
Arkansas	16	113	72	54	315	278	51	6	...	...
Tennessee and Kentucky	...	...	...	...	1	9	18	4	...	...
Virginia, West Virginia, Maryland, Delaware, and New Jersey	1	1	...	2	...	...	32	402	573	76
Pennsylvania	...	...	...	...	...	1	...	...	94	126
Washington, Idaho, and Utah	...	...	...	1	1	5	22	6	64	85
Colorado	...	...	...	...	...	...	...	3	...	366
Illinois	...	3	...	...	...	2	41	265	59	...
Total	448	1 078	1 395	1 179	2 081	3 631	2 129	792	827	656

[a]Preliminary data. Subject to revision.

TABLE 24.—PEACH PRODUCTION IN PRINCIPAL STATES AND TOTAL FOR THE UNITED STATES, 1923-1941

	1923	1924	1925	1926	1927	1923-1927 (average)	1928	1929	1930	1931	1932	1928-1932 (average)
						(*Thousands of bushels*)						
Georgia	5 824	8 466	8 362	10 000	5 600	7 650	10 400	3 600	6 283	8 832	1 320	6 087
South Carolina	391	733	740	932	628	685	1 501	690	1 092	1 512	608	1 081
North Carolina	529	2 304	1 393	1 995	1 032	1 450	2 100	1 326	1 512	2 944	1 504	1 877
Arkansas	1 129	2 518	2 015	2 002	1 323	1 797	2 080	1 940	142	3 344	451	1 591
Tennessee	505	2 162	1 272	1 662	586	1 237	1 934	1 325	600	2 755	300	1 383
Kentucky	418	1 130	522	1 006	162	648	911	530	65	1 280	84	574
Total	8 796	17 313	14 304	17 597	9 331	13 468	18 926	9 411	9 694	20 667	4 267	12 593
Illinois	846	638	500	2 296	899	1 036	1 402	2 864	39	4 000	237	1 708
Indiana	470	220	300	900	320	442	710	1 008	14	1 293	96	624
New Jersey	2 486	2 358	1 464	2 299	1 949	2 111	1 104	1 990	1 316	2 190	1 633	1 647
Virginia	570	1 355	440	1 176	422	793	952	1 058	260	1 600	350	844
Maryland	542	544	238	705	375	481	462	655	246	754	304	484
West Virginia	460	901	167	886	174	518	690	489	98	850	96	445
Delaware	345	360	164	414	272	311	152	402	180	500	227	292
Total	4 403	5 518	2 473	5 480	3 192	4 213	3 360	4 594	2 100	5 894	2 610	3 712
Pennsylvania	1 907	1 623	650	2 525	972	1 535	1 952	1 234	1 044	2 850	1 984	1 813
Michigan	834	383	483	1 334	615	730	1 235	998	1 011	2 372	2 208	1 565
New York	1 953	1 954	1 668	2 002	936	1 703	1 800	1 078	1 782	2 074	1 884	1 724
Ohio	1 469	774	860	1 698	1 080	1 176	1 584	478	369	2 172	796	1 080
Total	6 163	4 734	3 661	7 559	3 603	5 144	6 571	3 788	4 206	9 468	6 872	6 181
Washington	1 360	459	800	1 344	297	852	1 462	1 225	688	1 050	1 320	1 149
Utah	918	759	150	768	799	679	790	604	370	550	722	607
Idaho	298	75	16	195	108	138	214	183	21	193	193	161
Colorado	750	935	420	1 104	984	839	720	959	749	1 120	1 201	950
Total	3 326	2 228	1 386	3 411	2 188	2 508	3 186	2 971	1 828	2 913	3 436	2 867
California	15 835	13 626	16 251	22 252	20 044	17 602	25 752	13 376	33 169	24 127	22 794	23 844
States other than California	4 951	7 477	6 642	6 814	3 610	5 898	6 155	6 725	4 296	8 691	2 982	5 769
Total U. S. production	44 790	51 754	45 517	66 309	43 187	50 311	66 062	44 737	55 346	77 053	43 294	57 298

(Table is concluded on next page)

TABLE 24.—PEACH PRODUCTION IN PRINCIPAL STATES AND TOTAL FOR THE UNITED STATES *(Concluded)*

	1933	1934	1935	1936	1937	1933-1937 (average)	1938	1939	1940	1941
Georgia	5 440	5 544	5 628	5 589	2 730	4 986	5 320	4 290	4 216	5 561
South Carolina	1 207	1 200	1 350	1 159	1 080	1 199	1 515	1 484	2 158	3 471
North Carolina	2 080	2 116	1 962	1 558	1 984	1 940	2 232	1 395	1 344	2 760
Arkansas	924	2 740	1 886	1 012	2 288	1 770	2 451	2 709	2 040	3 042
Tennessee	580	2 308	899	854	1 860	1 300	610	1 798	264	2 186
Kentucky	237	490	632	131	1 369	572	352	562	258	1 362
Total	10 468	14 398	12 357	10 303	11 311	11 767	12 480	12 236	10 280	18 382
Illinois	1 348	490	2 701	256	2 117	1 382	1 480	2 057	200	2 254
Indiana	194	164	756	10	402	305	144	378	58	604
New Jersey	945	22	800	1 352	1 651	954	1 172	1 435	1 494	1 461
Virginia	990	502	943	594	1 599	926	1 161	990	1 392	2 017
Maryland	320	54	296	279	448	279	352	427	470	462
West Virginia	259	57	190	90	528	225	184	315	446	425
Delaware	198	62	218	500	398	275	304	422	465	422
Total	2 712	697	2 447	2 815	4 624	2 659	3 173	3 589	4 267	4 787
Pennsylvania	1 440	568	2 231	799	2 673	1 542	1 842	2 618	2 500	2 308
Michigan	259	644	2 477	1 720	2 652	1 550	1 341	2 769	1 682	2 760
New York	1 222	98	1 372	1 232	1 806	1 146	1 134	1 722	1 380	1 424
Ohio	420	205	1 496	164	1 296	716	481	1 212	443	1 427
Total	3 341	1 515	7 576	3 915	8 427	4 955	4 798	8 321	6 005	7 919
Washington	255	1 397	936	1 558	935	1 016	1 428	1 210	1 494	1 432
Utah	52	393	504	554	72	315	573	564	600	689
Idaho	56	118	197	175	14	112	181	146	207	145
Colorado	562	1 210	1 280	1 345	1 533	1 186	1 634	1 575	2 000	1 628
Total	925	3 118	2 917	3 632	2 554	2 629	3 816	3 495	4 301	3 894
California	22 085	20 627	17 876	21 502	23 252	21 068	20 501	23 711	23 585	22 252
States other than California	4 198	6 676	8 060	5 217	7 037	6 239	5 553	7 943	5 734	9 518
Total U. S. production	45 271	47 685	54 690	47 650	59 724	51 004	51 945	61 730	54 430	69 610

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